# RADview-EMS

## Element Management System

### ASMi-52

# Contents

# Chapter 1

# Introduction

This chapter provides an overview of the ASMi-52 device and the RADview ASMi-52 user interface.

## 1.1 Overview of the RADview FCAPS Model

RADview provides a complete management solution for monitoring and controlling the ASMi-52 device. The RADview solutions conform to ITU-T Telecommunication Management Network (TMN) recommendations for SNMP management systems, known as the FCAPS model:

- **Fault management** – detects and correlates fault in network devices, isolates faults, and initiates recovery actions

- **Configuration management** – tracks configuration changes and configures, installs, and distributes software and configuration files across the network

- **Performance management** – continuously monitors network performance (QoS, CoS) and resource allocation

## 1.2 Overview of the ASMi-52 Device

ASMi-52 is a part of SHDSL technology, which offers a cost-effective solution for delivering digital data. The data is delivered to customer premises over the existing copper cables of the distribution network, while eliminating the need for repeaters. The ASMi-52 modem is based on multiple-line rate SHDSL technology. The modem is fully synchronous and operates in full duplex form. The modem uses 2-wire or 4-wire line pairs, or a single unconditional copper twisted pair. The ASMi-52 modem can operate as a CO or CPE unit (according to method of use and user configuration). Different units are not required. The ASMi-52 unit can be configured locally via a 10/100 mbps Ethernet port (as an ordering option) or via an RS-232 control port. ASMi-52, together with an E1 interface port support, can also access the modem via a dedicated time slot in the E1 interface.

## Using the Graphical User Interface
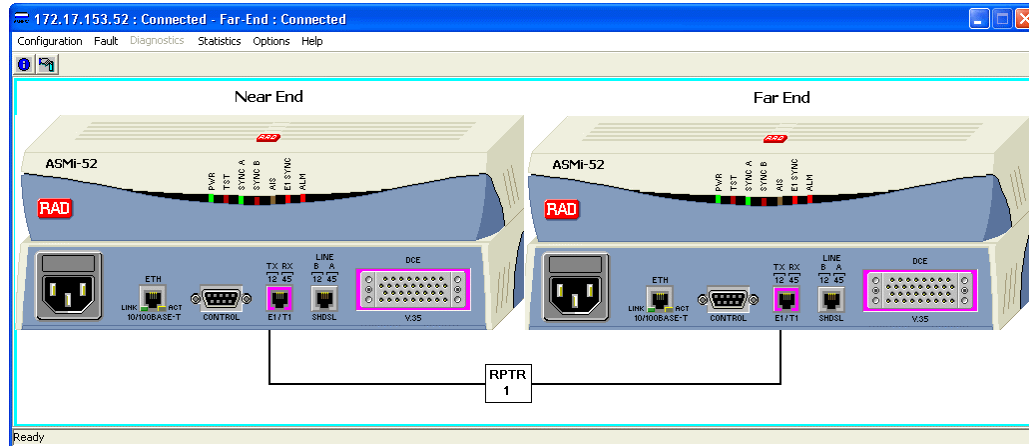


*Figure 1-1.  RADview ASMi-52 Window*

**Note**    *In the above figure, one repeater is displayed. However, the ASMi-52 device may include up to eight repeaters.*

The RADview graphical user interface provides a dynamically updated graphical representation of the Near End ASMi-52, the Far End modem, and the repeaters that exist between them. ASMi-52 devices are displayed with their front and rear panels, allowing you to monitor and manage their operations. The window includes port interfaces and their operational and communication statuses, as well as the devices' LED indicator statuses. Configuration and monitoring can be done at the system level, modem level, and port level.

### Selecting Objects in the Window

You can select any of the following objects in the window:

- System (entire window) – Click the light blue frame surrounding the window.

- Modem (Far End or Near End) – Click the light blue frame surrounding the desired device.

- Port [SHDSL link, ETH, E1/T1, DTE (V.35/X.21/RS-530), CONTROL] – Click the light blue frame surrounding the desired port.

- Repeater(s)

### Displaying Near End and Far End Modems

The Near End (NE) device, the ASMi-52, is displayed with its front and back panel, LEDs, and ports.

The Far End (FE) device is fully displayed as well if it is an ASMi-52/Master/Slave device. Otherwise, an empty box is displayed with the FE modem name on it.

Whether the Far End is displayed depends on its modem type. *Table 1-1* displays the available Far End display options.

*Table 1-1.  Far End Display Options*

| FE Modem | Modem Type | Managed/Unmanaged |
|---|---|---|
| Unknown | Unknown | Unmanaged |
| ASMi-52 | ASMi-52 SA | Managed |
| ASMi-52 Master | ASMi-52 SA | Managed |
| ASMi-52 Slave | ASMi-52 SA | Managed |
| ASMi-52/CD | LRS-24 Card | Managed |
| ASMi-52/CQ | LRS-24 Card | Managed |
| LRS-52 | LRS-52 | Managed |
| D8SL | DXC Card | Managed |
| MP-SHDSL | MP Card | Managed |
| FCD-IP | FCD-IP | Unmanaged |
| FCD-IPM | FCD-IPM | Unmanaged |

### Menu Bar

The menu bar includes the following pull-down menus: Configuration, Fault, Diagnostics, Options, and Help. Menu availability and content varies depending on the selected object (system, modem, or port).

### Toolbar

The following buttons are available on the toolbar:

**System Info** – Displays the system information for the selected interface

**Poll Agent** – Polls the Agent immediately

### Status Bar

The status bar indicates if RADview ASMi-52 is ready, if there is a system error, or if the Agent is currently being polled.

## LEDs

*Note*   *LED status is displayed only for ASMi-52 and ASMi-52 Master/Slave devices.*

The front panel of ASMi-52 includes a series of LED indicators that show the current operating status. *Table 1-2* lists and describes the ASMi-52 LED indicators.

*Table 1-2.  ASMi-52 LEDs*

| Name | Function | Location |
|---|---|---|
| PWR (green) | ON – Power supply is ON | Front panel |
|  | OFF – Power supply is OFF |  |
| TST (red) | ON – Test is active on one of the device's ports | Front panel |
|  | OFF – No test is active on any of the device's ports |  |

*Table 1-2.  ASMi-52 LEDs (Cont.)*

| Name | Function | Location |
|---|---|---|
| SYNC (green/red) or SYNC A (green/red) | The SYNC LED is for 2W modems<br><br>The SYNC A LED is for 4W modems<br><br>• ON (red) – Snyc Line A operation state is IDLE, BOOTUP_LOAD, or BOOTUP_LOAD_DONE<br><br>• Blinking  (red) – Snyc Line A operation state is HANDSHAKE_OP<br><br>• Blinking (green) – TRAINING_OP and FRAMER_SYNC<br><br>• ON (green) – Snyc Line A operation state is DATA | Front panel |
| SYNC B (green/red) | The SYNC B LED is only applicable for 4W modems<br><br>• ON (red) – Snyc Line B operation state is IDLE, BOOTUP_LOAD, or BOOTUP_LOAD_DONE<br><br>• Blinking  (red) – Snyc Line B operation state is HANDSHAKE_OP<br><br>• Blinking (green) – TRAINING_OP and FRAMER_SYNC<br><br>• ON (green) – Snyc Line B operation state is DATA | Front panel |
| AIS (yellow) or YELLOW (yellow) | The AIS LED is applicable only for the E1 interface<br><br>• ON – AIS received<br><br>• OFF – No AIS received<br><br>The YELLOW LED is applicable only for the T1 interface<br><br>• ON – Yellow alarm<br><br>• OFF – No Yellow alarm | Front panel |
| E1 SYNC / T1 SYNC (red) or DATA (yellow) | The E1 SYNC / T1 SYNC LED is only applicable for an E1/T1 interface<br><br>• ON (red) – E1/T1 is not synchronized<br><br>• OFF – E1/T1 is synchronized<br><br>The DATA LED is not applicable for an E1/T1 interface<br><br>Blinking (yellow) – Data is being received or transmitted via the DTE interface<br><br>OFF – No data | Front panel |
| ALM (red) | ON (red) – An alarm exists<br><br>OFF – No data | Front panel |

## Port Status

The operational status of each physical port is indicated by the color of the port. The color displayed is based both on polling and on notifications of interface operational status.

The color appears according to the following order of conditions:

*Table 1-3.  ASMi-52 Port Statuses*

| Name | Function | Location |
|------|----------|----------|
| Magenta | There are failures on the port | Front panel |
| Light Blue | There is an active test on the port | Front panel |
| Gray | The port is operational, and no test is running | Front panel |

# 1.3  System Level Operations

*Table 1-4* lists the different management options for the system level.

*Table 1-4.  System Management Options*

| Tasks – Fault | Dialog Box and/or Parameter Location | Path |
|---------------|--------------------------------------|------|
| Masking the alarms | Refer to *Masking the Alarms* in *Chapter  2*. | Fault<br>➥Mask Alarms… |
| Clearing the history log | Refer to *Clearing the History Log* in *Chapter  2*. | Fault<br>➥History Log<br>➥Clear All |
| **Tasks – Configuration** | **Dialog Box and/or Parameter Location** | **Path** |
| Configuring system information | *System Information Dialog Box*<br><br>Refer to *Viewing and Setting* System Information in *Chapter 3*. | Configuration<br>➥System Info… |
| Polling the Agent | Refer to *Polling the Agent* in *Chapter 3*. | Configuration<br>➥Poll Agent |
| Viewing the host interface list | *Host Interface List Dialog Box*<br><br>*Refer to Viewing the Host Interface List Chapter 3*. | Options<br>➥Host Interface List… |
| Configuring the manager list | *Manager List Dialog Box*<br><br>Refer to *Configuring the Manager List* in *Chapter 3*. | Options<br>➥Manager List… |
| Setting the polling option | Refer to *Setting the Polling Option* in *Chapter 3*. | Options<br>➥Polling |

*Table 1-4.  System Management Options (Cont.)*

| Task – Statistics | Dialog Box and/or Parameter Location | Path |
|---|---|---|
| Setting the polling interval | *Polling Interval Dialog Box*<br><br>Refer to *Setting the Polling Interval* in *Chapter   4*. | Statistics<br>➥Polling Interval… |

## 1.4  Modem Level Operations

*Table 1-5* lists the different management options for the modem level.

*Table 1-5.  Modem Management Options*

| Tasks – Fault | Dialog Box and/or Parameter Location | Path |
|---|---|---|
| Displaying the active alarms for modems and ports | *All Modem Active Alarm List Dialog Box*<br><br>Refer to *Displaying the Active Alarms for Modems and Ports* in *Chapter   2*. | Fault<br>➥Active Alarms<br>➥Modem & Ports… |
| Displaying the active alarms at the modem level | *Modem Active Alarm List Dialog Box*<br><br>Refer to *Displaying the Active Alarms at the Modem Level* in *Chapter   2*. | Fault<br>➥Active Alarms<br>➥Modem Level… |
| Displaying the history log for the active alarms at the modem level | *Modem Alarm Buffer List Dialog Box*<br><br>Refer to *Displaying the History Log* in *Chapter   2*. | Fault<br>➥History Log<br>➥List… |
| **Tasks – Configuration** | **Dialog Box and/or Parameter Location** | **Path** |
| Viewing modem information | *Modem Information Dialog Box*<br><br>Refer to *Viewing Modem Information* in *Chapter 3*. | Configuration<br>➥Modem Info… |
| Configuring the modem parameters | *Modem Parameters Dialog Box*<br><br>Refer to *Configuring the Modem Parameters* in *Chapter 3*. | Configuration<br>➥Modem Parameters… |
| Viewing available bandwidth | *Bandwidth Allocation Dialog Box*<br><br>Refer to *Viewing Available Bandwidth* in *Chapter 3*. | Configuration<br>➥Bandwidth Allocation… |

*Table 1-5.  Modem Management Options (Cont.)*

| Tasks – Configuration | Dialog Box and/or Parameter Location | Path |
|---|---|---|
| Configuring the LAN | *LAN Configuration Dialog Box*<br><br>Refer to *Configuring the LAN in Chapter 3*. | Configuration<br>➥LAN Configuration… |
| Configuring the bridging table | *Bridging Table Dialog Box*<br><br>Refer to *Configuring the Bridging Table* in *Chapter 3*. | Configuration<br>➥Bridging Table… |
| Configuring QoS mapping | *QoS Mapping Dialog Box*<br><br>Refer to *Configuring QoS Mapping* in *Chapter 3*. | Configuration<br>➥QoS Mapping… |
| Resetting the modem hardware | Refer to *Resetting the Modem Hardware* in *Chapter 3*. | Configuration<br>➥Reset<br>➥Modem HW |
| Resetting the modem configuration | Refer to *Resetting the Modem Configuration* in *Chapter 3*. | Configuration<br>➥Reset<br>➥Configuration |
| Resetting the Line Configuration | Refer to *Resetting the Line Configuration* in *Chapter 3*. | Configuration<br>➥Reset<br>➥Line |
| Testing the modem diagnostics | *Test Dialog Box*<br><br>Refer to *Testing the Modem Diagnostics* in *Chapter 3*. | Diagnostics<br>➥Test… |
| Configuring BERT testing | *BERT Counters Dialog* Box<br><br>Refer to *Configuring BERT Testing* in *Chapter 3*. | Diagnostics<br>➥BERT Counters… |
| **Task – Statistics** | **Dialog Box and/or Parameter Location** | **Path** |
| Clearing modem statistics | Refer to *Clearing Modem Statistics* in *Chapter   4*. | Statistics<br>➥Clear Modem Statistics… |

## 1.5  SHDSL Link Port Level Operations

*Table 1-6* lists the different management options for the SHDSL Link port level.

*Table 1-6.  SHDSL Link Port Management Options*

| Task – Fault | Dialog Box and/or Parameter Location | Path |
|---|---|---|
| Displaying the active alarms at the SHDSL Link port level | *Port Active Alarm List Dialog Box*<br><br>Refer to *Displaying the Active Alarms at the SHDSL Link Port Level* in *Chapter   2*. | Fault<br>➥Active Alarms… |

| Tasks – Configuration | Dialog Box and/or Parameter Location | Path |
|---|---|---|
| Configuring the SHDSL Link port parameters | *Port Parameters Dialog Box*<br><br>Refer to *Configuring the SHDSL Link Port Parameters* in *Chapter 3*. | Configuration<br>➥Parameters… |
| Viewing the SHDSL Link port status configuration | *Port Status Dialog Box*<br><br>Refer to *Viewing the SHDSL Link Port Status Configuration* in *Chapter 3*. | Configuration<br>➥Status… |

| Tasks – Statistics | Dialog Box and/or Parameter Location | Path |
|---|---|---|
| Viewing port data from the beginning of the current 15-minute interval | *15 min Current Data Dialog Box*<br><br>Refer to *Viewing Current 15-Minute Data for the SHDSL Link Port* in *Chapter   4*. | Statistics<br>➥Line<br>➥15 min Current Data… |
| Viewing port data from the beginning of the current one-day interval | *One Day Current Data Dialog Box*<br><br>Refer to *Viewing One-Day Current Data for the SHDSL Link Port* in *Chapter   4*. | Statistics<br>➥Line<br>➥One Day Current Data... |
| Viewing port data for all 15-minute intervals over the last 24 hours | *15 min Interval Data Dialog Box*<br><br>Refer to *Viewing 15-Minute Interval Data for the SHDSL Link Port* in *Chapter   4*. | Statistics<br>➥Line<br>➥15 min Interval Data |
| Viewing port data at one-day intervals | *One Day Interval Data Dialog Box*<br><br>Refer to *Viewing One-Day Interval Data for the SHDSL Link Port* in *Chapter   4*. | Statistics<br>➥Line<br>➥One Day Interval Data… |
| Viewing accumulated data for the SHDSL link port | *Accumulated Data Dialog Box*<br><br>Refer to *Viewing Accumulated Data for the SHDSL Link Port* in *Chapter   4*. | Statistics<br>➥Line<br>➥Accumulated Data… |

*Table 1-6.  SHDSL Link Port Management Options (Cont.)*

| Task – Statistics | Dialog Box and/or Parameter Location | Path |
|---|---|---|
| Clearing port statistics at the SHDSL Link port level | Refer to *Clearing Statistics for the SHDSL Link Port* in *Chapter   4*. | Statistics ➡Clear Statistics… |

## 1.6  ETH Port Level Operations

*Table 1-7* lists the different management options for the ETH port level.

*Table 1-7.  ETH Port Management Options*

| Task – Fault | Dialog Box and/or Parameter Location | Path |
|---|---|---|
| Displaying the active alarms at the ETH port level | *Port Active Alarm List Dialog Box* <br><br> Refer to *Displaying the Active Alarms at the ETH Port Level* in *Chapter   2*. | Fault ➡Active Alarms… |
| **Task – Configuration** | **Dialog Box and/or Parameter Location** | **Path** |
| Configuring the ETH port parameters | *Port Parameters Dialog* Box <br><br> Refer to *Configuring the ETH Port Parameters* in *Chapter 3*. | Configuration ➡Parameters… |

## 1.7  E1 and T1 Port Level Operations

*Table 1-8* lists the different management options for the E1 and T1 port levels.

*Table 1-8.  E1 and T1 Port Management Options*

| Task – Fault | Dialog Box and/or Parameter Location | Path |
|---|---|---|
| Displaying the active alarms at the E1 port level | *Port Active Alarm List Dialog Box* <br><br> Refer to *Displaying the Active Alarms at the E1 Port Level* in *Chapter   2.* | Fault ➡Active Alarms… |

*Table 1-8.  E1 and T1 Port Management Options (Cont.)*

| Tasks – Configuration | Dialog Box and/or Parameter Location | Path |
|---|---|---|
| Configuring the parameters for the E1 port | *Port Parameters Dialog Box*<br><br>Refer to *Configuring the Parameters for the E1 Port* in *Chapter 3*. | Configuration<br>➡Parameters… |
| Configuring the parameters for the T1 port | Refer to *Configuring the Parameters for the T1 Port* in *Chapter 3*. | Configuration<br>➡Parameters… |
| **Tasks – Statistics** | **Dialog Box and/or Parameter Location** | **Path** |
| Viewing BPV statistics | *BPV Statistics Dialog Box*<br><br>Refer to *Viewing BPV Statistics* in *Chapter 4*. | Statistics<br>➡BPV… |
| Viewing current 15-minute port data | *15 min Current Data Dialog Box*<br><br>Refer to *Viewing Current 15-Minute Port Data* in *Chapter 4*. | Statistics<br>➡15 min Current Data… |
| Viewing 15-minute interval port data | *15 min Interval Data* Dialog Box<br><br>Refer to *Viewing 15-Minute Interval Port Data* in *Chapter 4*. | Statistics<br>➡15 min Interval Data... |
| Clearing statistics for the E1/T1 port | Refer to *Clearing Statistics for the E1/T1 Port* in *Chapter 4*. | Statistics<br>➡Clear Statistics… |

## 1.8  DTE (V.35, X.21, RS-530) Port Levels Operations

*Table 1-9* lists the different management options for the DTE (V.35, X.21, RS-530) port levels.

*Table 1-9.  DTE (V.35, X.21, RS-530) Port Management Options*

| Task – Fault | Dialog Box and/or Parameter Location | Path |
|---|---|---|
| Displaying the active alarms at the DTE (V.35, X.21, RS-530) port levels | *Port Active Alarm List Dialog Box*<br><br>Refer to *Displaying the Active Alarms at the DTE (V.35, X.21, RS-530, IR-IP) Port* Levels in *Chapter 2*. | Fault<br>➡Active Alarms… |
| **Task – Configuration** | **Dialog Box and/or Parameter Location** | **Path** |
| Configuring the DTE (V.35, RS-530) port parameters | *Port Parameters Dialog Box*<br><br>Refer to *Configuring the DTE (V.35, RS-530) Port Parameters* in *Chapter 3*. | Configuration<br>➡Parameters… |

## 1.9  CONTROL Port Level Operations

*Table 1-10* lists the different management options for the CONTROL port level.

*Table 1-10.  CONTROL Port Management Options*

| Task – Configuration | Dialog Box and/or Parameter Location | Path |
|---|---|---|
| Configuring the CONTROL port parameters | *Port Parameters Dialog Box*<br><br>Refer to *Configuring the CONTROL Port Parameters* in *Chapter 3*. | Configuration<br>➥Parameters… |

## 1.10    Repeater Level Operations

*Table 1-11* lists the different management options for the repeater level.

*Table 1-11.  Repeater Management Options*

| Tasks – Fault | Dialog Box and/or Parameter Location | Path |
|---|---|---|
| Displaying the active alarms at the repeater level | *Repeater Active Alarm List Dialog Box*<br><br>Refer to *Displaying the Active Alarms at the Repeater Level* in *Chapter   2*. | Fault<br>➥Active Alarms… |
| Displaying the history log | *Repeater Alarm Buffer List Dialog Box*<br><br>Refer to *Displaying the History Log* in *Chapter   2*. | Fault<br>➥History Log<br>➥List… |
| **Tasks – Configuration** | **Dialog Box and/or Parameter Location** | **Path** |
| Configuring the repeater parameters | *Repeater Parameters Dialog Box*<br><br>Refer to *Configuring the Repeater Parameters* in *Chapter   2*. | Configuration<br>➥Parameters… |
| Resetting the repeater network side | Refer to *Resetting the Repeater Network Side* in *Chapter   2*. | Configuration<br>➥Reset Network Side |
| **Tasks – Diagnostics** | **Dialog Box and/or Parameter Location** | **Path** |
| Testing the repeater diagnostics | *Repeater Test Dialog Box*<br><br>Refer to *Testing the Repeater Diagnostics* in *Chapter   2*. | Diagnostics<br>➥Test… |

# Chapter 2

# Fault Management

This chapter describes ASMi-52 fault management at the system, modem, port, and repeater levels.

## 2.1 System Level – Fault Menu

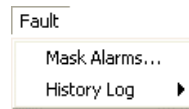The **Fault** menu provides access to the system alarm options.



*Figure 2-1. System Level Fault Menu*

### Masking the Alarms

The **Mask Alarms** command enables you to mask the alarms of all modems and repeaters.

➤ **To mask the alarms of all modems and repeaters:**

1. At the system level, select **Fault > Mask Alarms...**
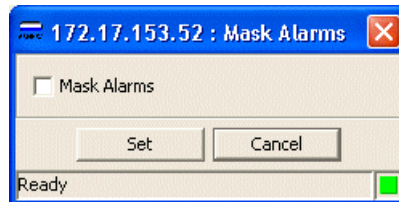


*Figure 2-2. Mask Alarms Dialog Box*

2. Select or deselect the Mask Alarms checkbox and click **<Set>**.

*Note*  *If you mask an alarm, it will not appear in the alarm list or history log. In addition, no alarm trap will be sent for the corresponding port.*

### Clearing the History Log

The **History Log > Clear All** command enables you to clear all entries in the alarm buffer.

➤ **To clear all entries in the alarm buffer:**

- At the system level, select **Fault > History Log > Clear All**.

    All entries in the alarm buffer are cleared.

## 2.2   Modem Level – Fault Menu

The **Fault** menu allows you to display the active alarms at the modem level. You can view the active alarms for modems and ports, or for modems only.
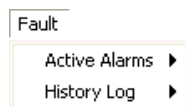


*Figure 2-3.  Modem Level Fault Menu*

### Displaying the Active Alarms for Modems and Ports

The **Active Alarms > Modems & Ports** command enables you to display the active alarms of the selected modem at both the modem and port levels.

➤ **To display the active alarms at all levels:**

- At the modem level, select **Fault > Active Alarms > Modems & Ports…**

***Note***     *You can sort the Active Alarm List by clicking any of the column headings.*



*Figure 2-4.  All Modem Active Alarm List Dialog Box*

*Table 2-1.  All Modem Active Alarm List Parameters*

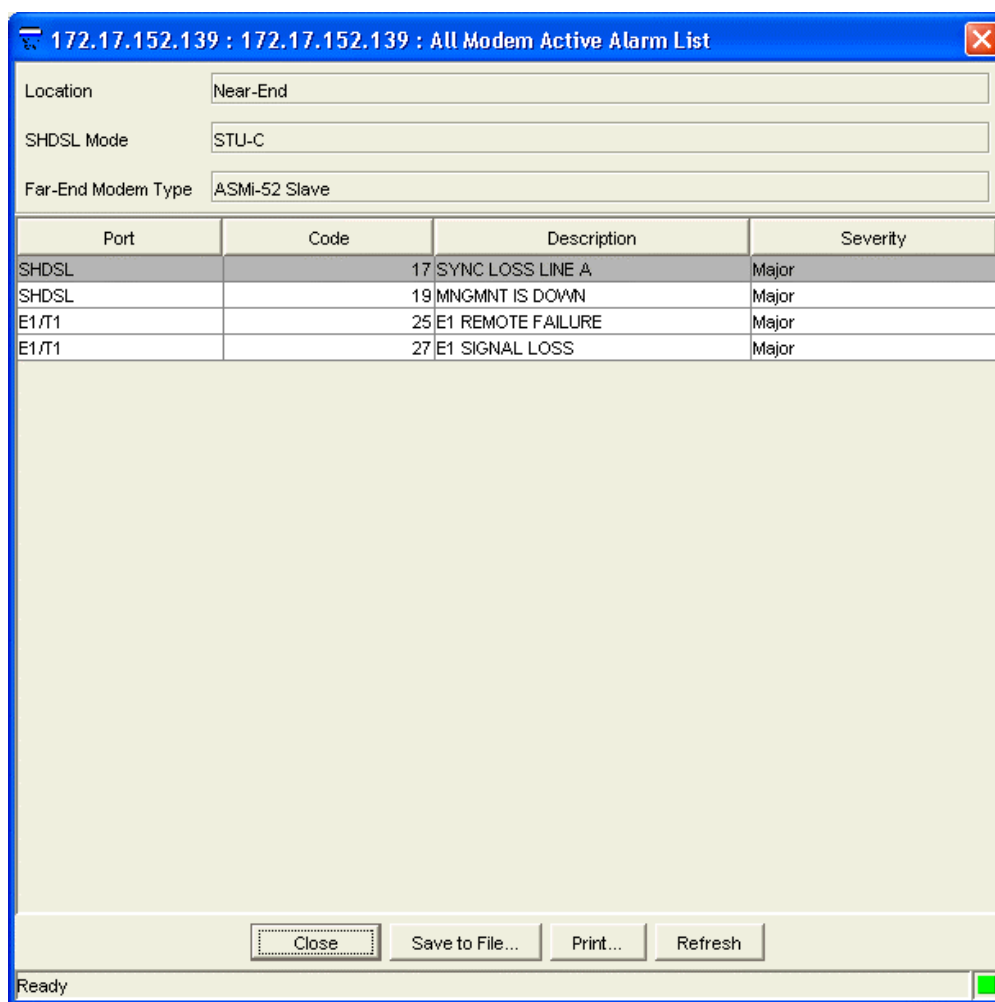| Parameter | Possible Values / Remarks |
|---|---|
| Location | **Near-End, Far-End** |
| SHDSL Mode | **STU-C, STU-R** |
| Far-End Modem Type | **Unknown, ASMi-52, ASMi-52 Master, ASMi-52 Slave, ASMi-52/CD, ASMi-52/CQ, LRS-52, FCD-IP, FCD-IPM, D8SL, MP-SHDSL** |
| Port | The port reporting the alarm |
| Code | Alarm code<br>**1…43, 50, 51, 60…66** |
| Description | Description of the alarm<br><br>***Note:*** *See Appendix A for a full list of alarm descriptions* |
| Severity | **Major**, **Minor, Warning** |
| [Close] | Click **<Close>** to close the All Modem Active Alarm List dialog box |
| [Save to File...] | Click **<Save to File...>** to save the All Modem Active Alarm List to a file<br><br>***Note:*** *In the File of type field, select **Acrobat (*pdf)** or **HTML (*.htm)*** |
| [Print...] | Click **<Print...>** to print the All Modem Active Alarm List |
| [Refresh] | Click **<Refresh>** to update the All Modem Active Alarm List dialog box |

## Displaying the Active Alarms at the Modem Level

The **Active Alarms > Modem Level** command enables you to display the active alarms at the modem level.

➤ **To display the active alarms at the modem level:**

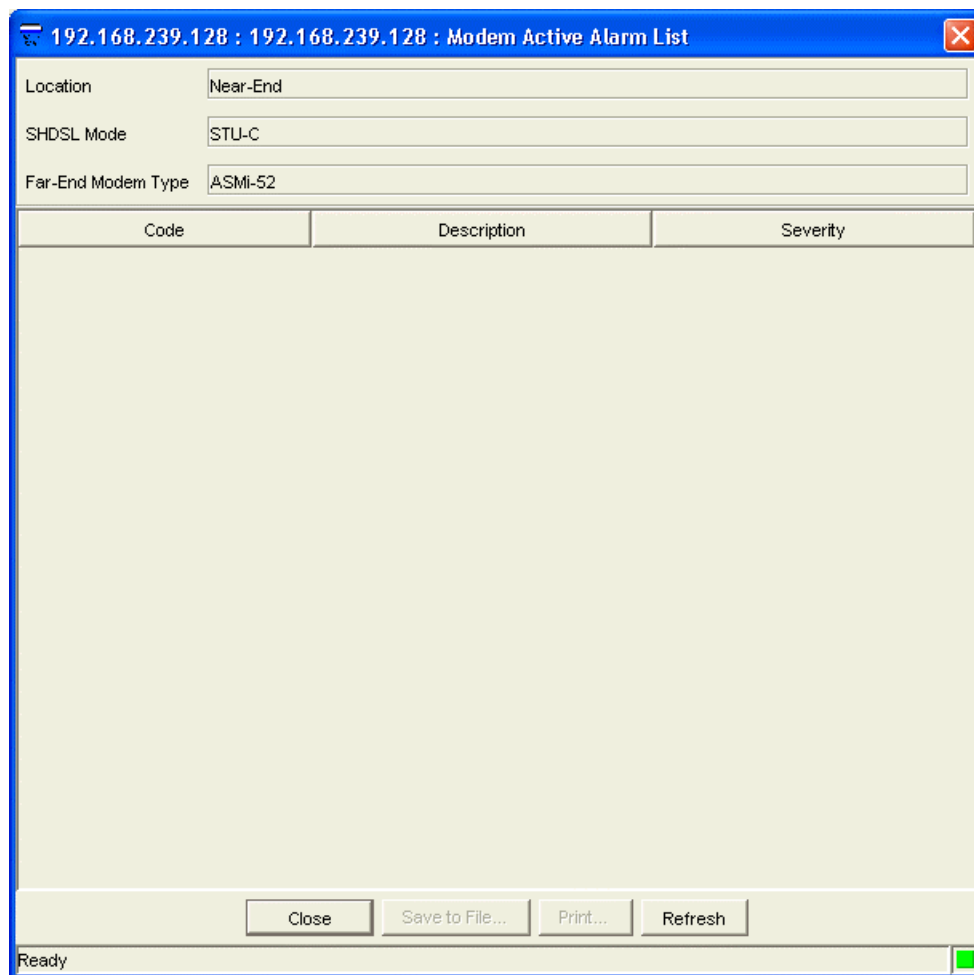- At the modem level, select **Fault > Active Alarms > Modem Level…**

*Figure 2-5.  Modem Active Alarm List Dialog Box*

*Table 2-2.  Modem Active Alarm List Parameters*

| Parameter | Possible Values / Remarks |
|---|---|
| Location | **Near-End, Far-End** |
| SHDSL Mode | **STU-C, STU-R** |
| Far-End Modem Type | **Unknown, ASMi-52, ASMi-52 Master, ASMi-52 Slave, ASMi-52/CD, ASMi-52/CQ, LRS-52, FCD-IP, FCD-IPM, D8SL, MP-SHDSL** |
| Code | Alarm code<br>**1, 2, 20, 23, 42, 43, 51, 60…66** |
| Description | Description of the alarm<br><br>*Note: See Appendix A for a full list of alarm descriptions* |
| Severity | **Major**, **Minor, Warning** |
| [Close] | Click **<Close>** to close the Modem Active Alarm List dialog box |
| [Save to File...] | Click **<Save to File...>** to save the  Modem Active Alarm List to a file<br><br>*Note: In the File of type field, select **Acrobat (*pdf)** or **HTML (*.htm)*** |

*Table 2-2.  Modem Active Alarm List Parameters (Cont.)*

| Parameter | Possible Values / Remarks |
|---|---|
| [Print...] | Click **<Print...>** to print the Modem Active Alarm List |
| [Refresh] | Click **<Refresh>** to update the Modem Active Alarm List dialog box |

## Displaying the History Log

The **History Log > List** command enables you to display the history log for the active alarms at the modem level.

➤ **To display the history log for the active alarms at the modem level:**

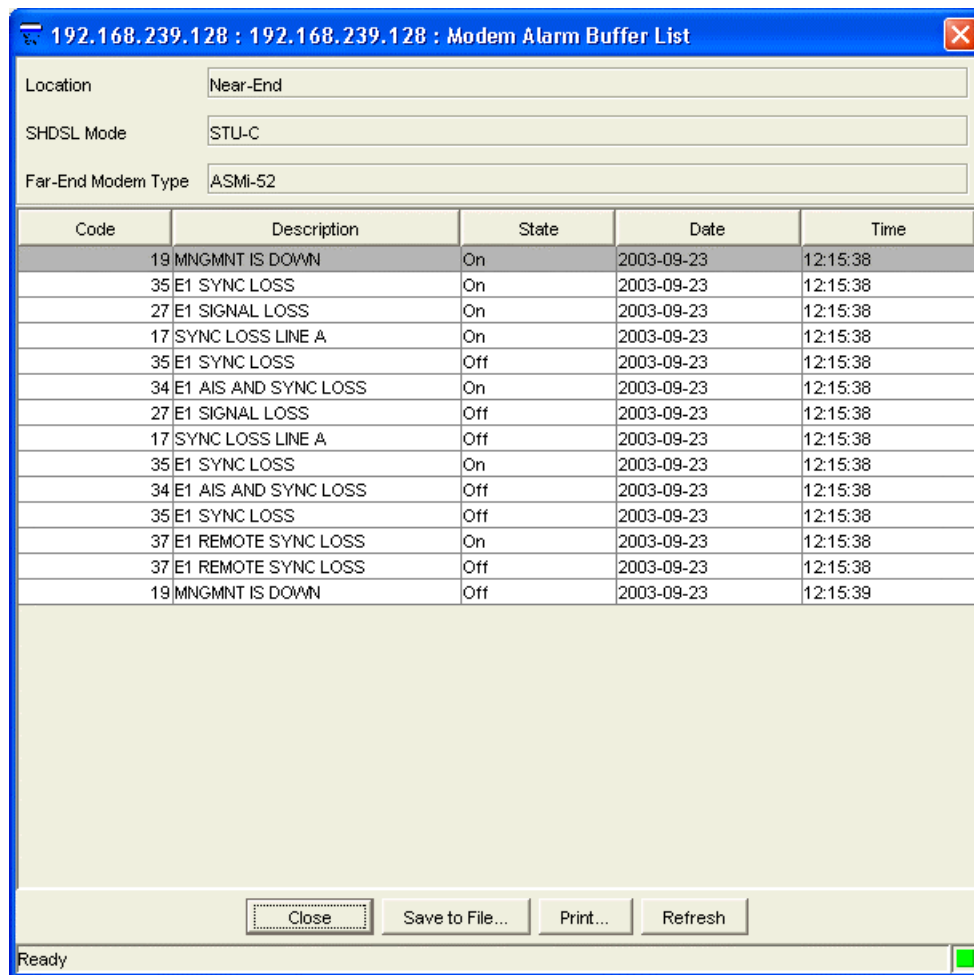- At the modem level, select **Fault > History Log > List…**



*Figure 2-6.  Modem Alarm Buffer List Dialog Box*

*Table 2-3.  Modem Alarm Buffer List Parameters*

| Parameter | Possible Values / Remarks |
|---|---|
| Location | **Near-End, Far-End** |
| SHDSL Mode | **STU-C, STU-R** |
| Far-End Modem Type | **Unknown, ASMi-52, ASMi-52 Master, ASMi-52 Slave, ASMi-52/CD, ASMi-52/CQ, LRS-52, FCD-IP, FCD-IPM, D8SL, MP-SHDSL** |
| Code | Alarm code<br>**1…43, 50, 51, 60…66** |
| Description | Description of the alarm<br><br>***Note:*** *See Appendix A for a full list of alarm descriptions* |
| State | **Off, On** |
| Date | The date of the alarm, in the format YYYY-MM-DD |
| Time | The time of the alarm, in the format HH:MM:SS |
| [Close] | Click **<Close>** to close the Modem Alarm Buffer List dialog box |
| [Save to File…] | Click **<Save to File…>** to save the  Modem Alarm Buffer List to a file<br><br>***Note:*** *In the File of type field, select **Acrobat (\*pdf)** or **HTML (\*.htm)*** |
| [Print…] | Click **<Print…>** to print the Modem Alarm Buffer List |
| [Refresh] | Click **<Refresh>** to update the Modem Alarm Buffer List dialog box |

## 2.3  SHDSL Link Port Level – Fault Menu

The **Fault** menu allows you to display the active alarms at the SHDSL Link port level.



*Figure 2-7.  SHDSL Link Port Level Fault Menu*

### Displaying the Active Alarms at the SHDSL Link Port Level

The **Active Alarms** command enables you to display the active alarms at the SHDSL Link port level.

➤ **To display the active alarms at the SHDSL Link port level:**

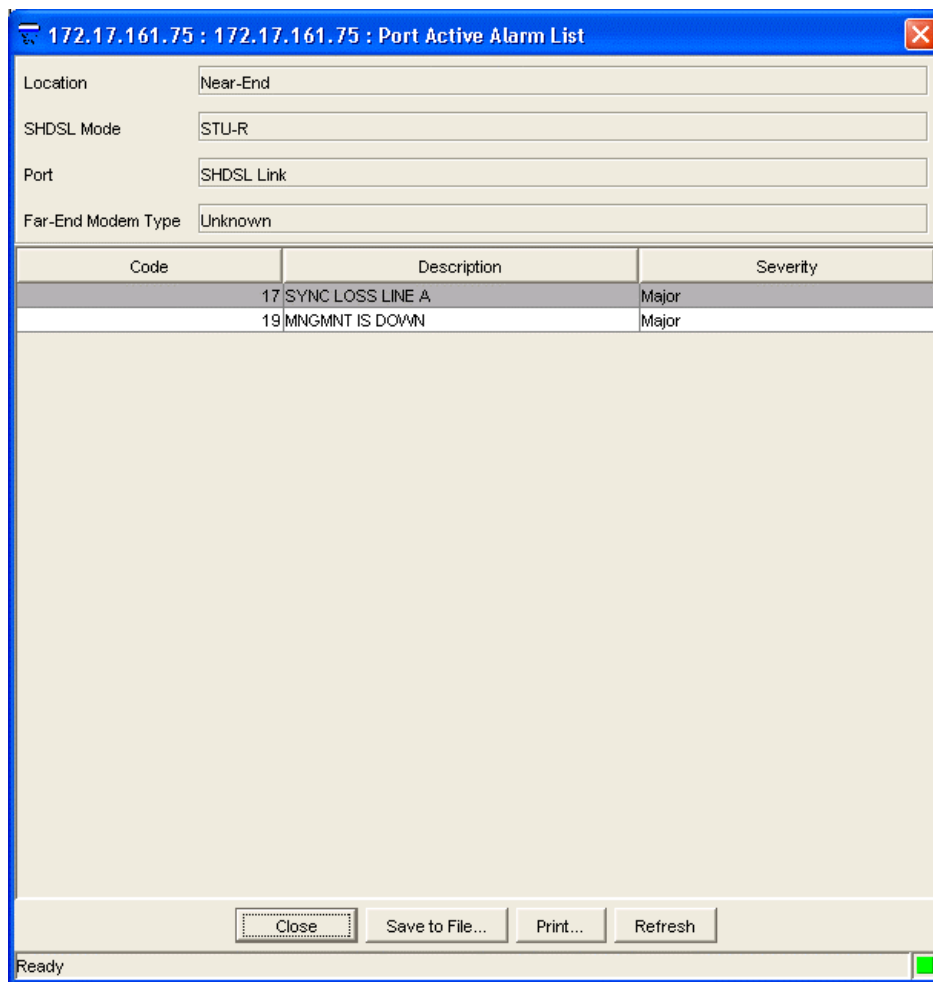- At the SHDSL Link port level (NE or FE), select **Fault > Active Alarms…**

*Figure 2-8. Port Active Alarm List Dialog Box*

*Table 2-4.  Port Active Alarm List Parameters*

| Parameter | Possible Values / Remarks |
|---|---|
| Location | **Near-End, Far-End** |
| SHDSL Mode | **STU-C, STU-R** |
| Port | **CONTROL, ETH, SHDSL Link, E1, T1, DTE (V.35, X.21, RS-530)** |
| Far-End Modem Type | **Unknown, ASMi-52, ASMi-52 Master, ASMi-52 Slave, ASMi-52/CD, ASMi-52/CQ, LRS-52, FCD-IP, FCD-IPM, D8SL, MP-SHDSL** |
| Code | Alarm code<br>**3, 6, 9…14, 16…19, 21, 22, 50** |
| Description | Description of the alarm<br><br>*Note: See Appendix A for a full list of alarm descriptions* |
| Severity | **Major**, **Minor, Warning** |
| [Close] | Click **<Close>** to close the Port Active Alarm List dialog box |
| [Save to File…] | Click **<Save to File…>** to save the  Port Active Alarm List to a file<br><br>*Note: In the File of type field, select **Acrobat (*pdf)** or **HTML (*.htm)*** |
| [Print…] | Click **<Print…>** to print the Port Active Alarm List |
| [Refresh] | Click **<Refresh>** to update the Port Active Alarm List dialog box |

## 2.4   ETH Port Level – Fault Menu

The **Fault** menu allows you to display the active alarms at the ETH port level.



*Figure 2-9.  ETH Port Level Fault Menu*

### Displaying the Active Alarms at the ETH Port Level

The **Active Alarms** command enables you to display the active alarms at the ETH port level.

➤ **To display the active alarms at the ETH port level:**

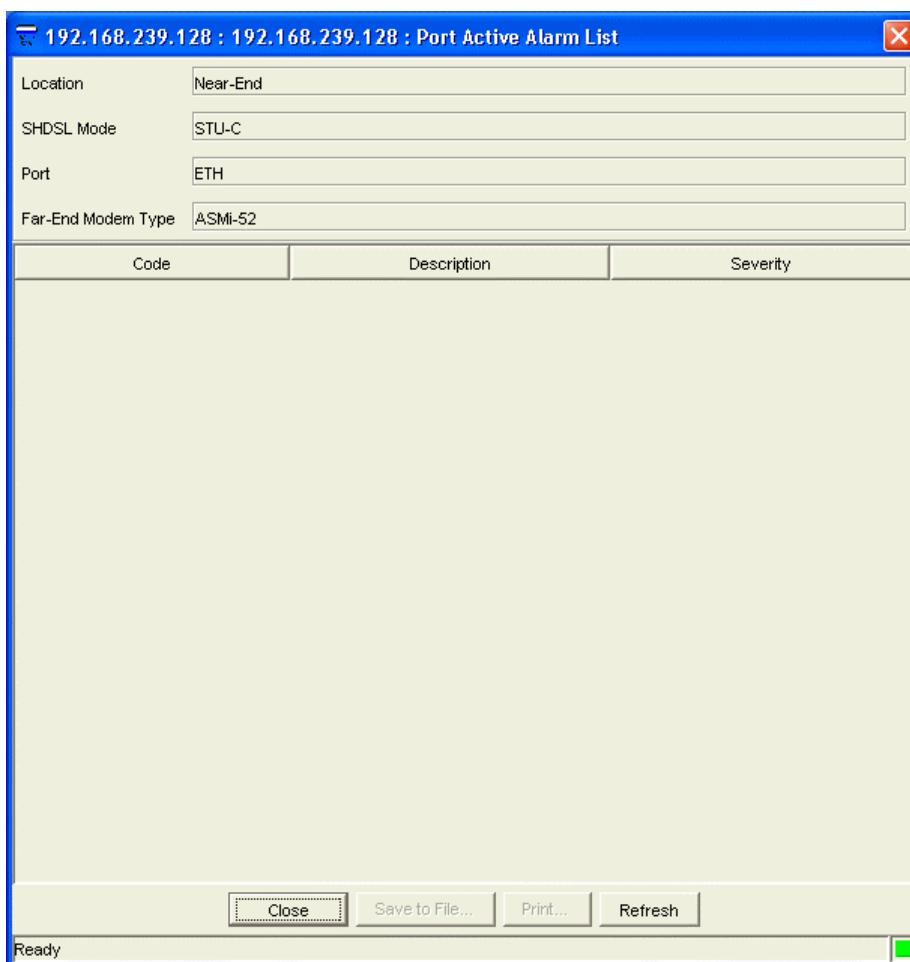• At the ETH port level (NE or FE), select **Fault > Active Alarms...**



*Figure 2-10.  Port Active Alarm List Dialog Box*

*Table 2-5.  Port Active Alarm List Parameters*

| Parameter | Possible Values / Remarks |
|---|---|
| Location | **Near-End, Far-End** |
| SHDSL Mode | **STU-C, STU-R** |
| Port | **CONTROL, ETH, SHDSL Link, E1, T1, DTE (V.35, X.21, RS-530)** |
| Far-End Modem Type | **Unknown, ASMi-52A, ASMi-52 Master, ASMi-52 Slave, ASMi-52/CD, ASMi-52/CQ, LRS-52, FCD-IP, FCD-IPM, D8SL, MP-SHDSL** |
| Code | Alarm code **8** |
| Description | Description of the alarm<br>*Note: See Appendix A for a full list of alarm descriptions* |
| Severity | **Major**, **Minor, Warning** |
| [Close] | Click **<Close>** to close the Port Active Alarm List dialog box |
| [Save to File...] | Click **<Save to File...>** to save the  Port Active Alarm List to a file<br>***Note:*** *In the File of type field, select **Acrobat (*pdf)** or **HTML (*.htm)*** |
| [Print...] | Click **<Print...>** to print the Port Active Alarm List |
| [Refresh] | Click **<Refresh>** to update the Port Active Alarm List dialog box |

## 2.5  E1 and T1 Port Levels – Fault Menu

The **Fault** menu allows you to display the active alarms at the E1 and T1 port levels.



*Figure 2-11.  E1 and T1 Port Level Fault Menu*

### Displaying the Active Alarms at the E1 Port Level

The **Active Alarms** command enables you to display the active alarms at the E1 and T1 port levels.

➤ **To display the active alarms at the E1 and T1 port levels:**

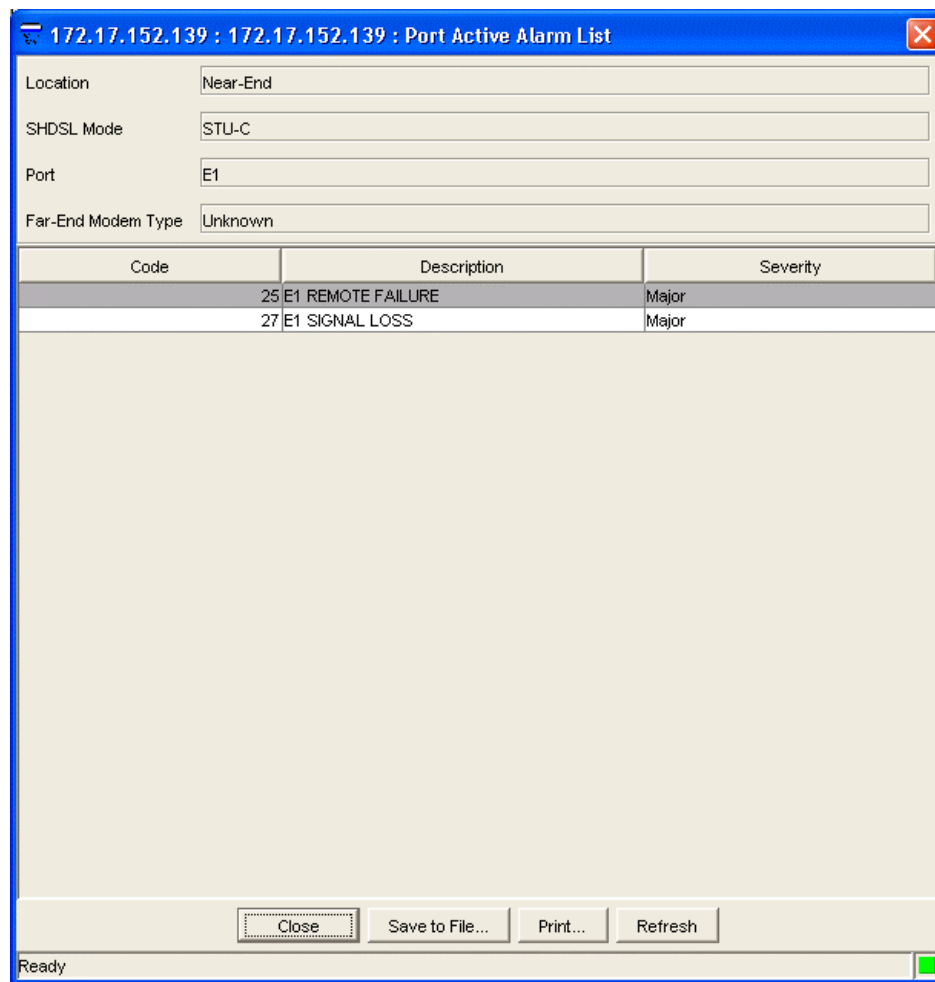• At the E1/T1 port level (NE or FE), select **Fault > Active Alarms...**

*Figure 2-12. Port Active Alarm List Dialog Box*

*Table 2-6.  Port Active Alarm List Parameters*

| Parameter | Possible Values / Remarks |
|---|---|
| Location | **Near-End, Far-End** |
| SHDSL Mode | **STU-C, STU-R** |
| Port | **CONTROL, ETH, SHDSL Link, E1, T1, DTE (V.35, X.21, RS-530)** |
| Far-End Modem Type | **Unknown, ASMi-52, ASMi-52 Master, ASMi-52 Slave, ASMi-52/CD, ASMi-52/CQ, LRS-52, FCD-IP, FCD-IPM, D8SL, MP-SHDSL** |
| Code | Alarm code<br>**7, 24…41** |
| Description | Description of the alarm<br>***Note:*** *See Appendix A for a full list of alarm descriptions* |
| Severity | **Major**, **Minor, Warning** |
| [Close] | Click **<Close>** to close the Port Active Alarm List dialog box |
| [Save to File...] | Click **<Save to File...>** to save the  Port Active Alarm List to a file<br>***Note:*** *In the File of type field, select **Acrobat (*pdf)** or **HTML (*.htm)*** |
| [Print...] | Click **<Print...>** to print the Port Active Alarm List |
| [Refresh] | Click **<Refresh>** to update the Port Active Alarm List dialog box |

## 2.6 DTE (V.35, X.21, RS-530, IR-IP) Port Levels – Fault Menu

The **Fault** menu allows you to display the active alarms at the DTE (V.35, X.21, RS-530, IR-IP) port levels.



*Figure 2-13.  DTE (V.35, X.21, RS-530, IR-IP) Port Level Fault Menu*

## Displaying the Active Alarms at the DTE (V.35, X.21, RS-530, IR-IP) Port Levels

The **Active Alarms** command enables you to display the active alarms at the DTE (V.35, X.21, RS-530, IR-IP) port levels.

➤ **To display the active alarms at the DTE (V.35, X.21, RS-530, IR-IP) port levels:**

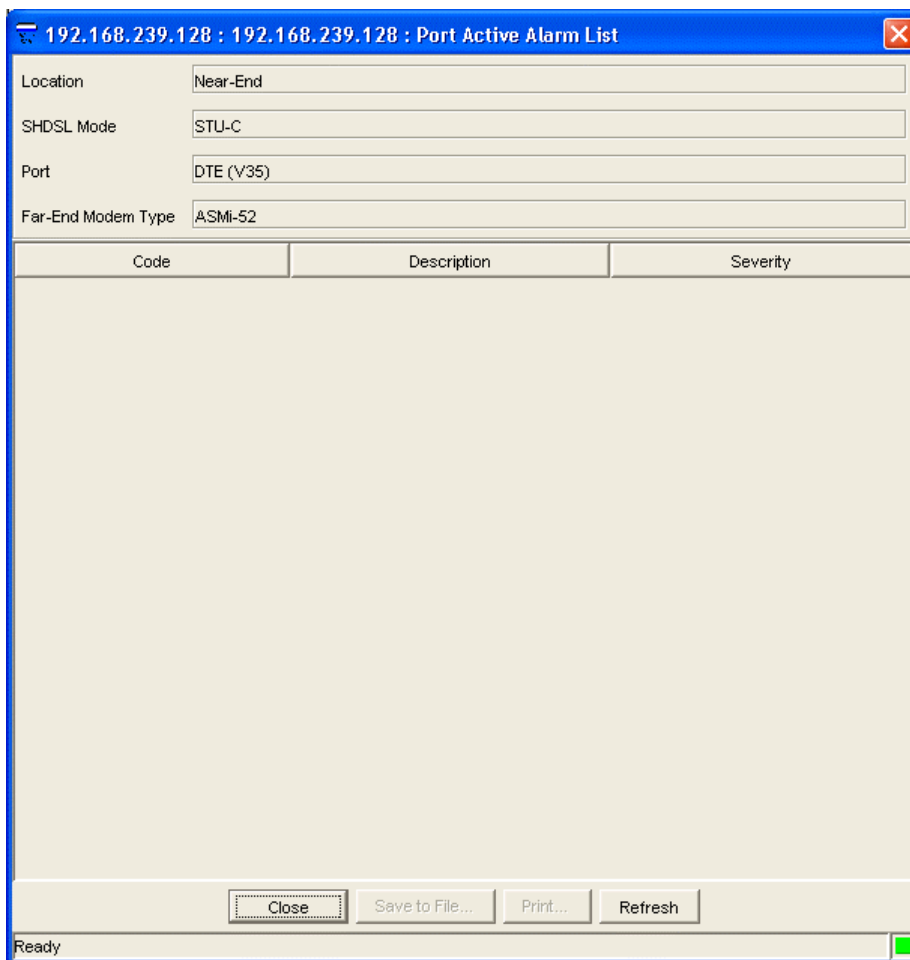* At the DTE (V.35, X.21, RS-530, IR-IP) port level, select **Fault > Active Alarms...**



*Figure 2-14. Port Active Alarm List Dialog Box*

*Table 2-7.  Port Active Alarm List Parameters*

| Parameter | Possible Values / Remarks |
|---|---|
| Location | **Near-End, Far-End** |
| SHDSL Mode | **STU-C, STU-R** |
| Port | **CONTROL, ETH, SHDSL Link, E1, T1, DTE (V.35, X.21, RS-530)** |
| Far-End Modem Type | **Unknown, ASMi-52, ASMi-52 Master, ASMi-52 Slave, ASMi-52/CD, ASMi-52/CQ, LRS-52, FCD-IP, FCD-IPM, D8SL, MP-SHDSL** |
| Code | Alarm code<br>**4, 5, 8, 15, 51**<br><br>***Note:*** *Bits 4 and 5 are only relevant for V.35/RS-530*<br><br>***Note:*** *Bit 8 is only relevant for IR-IP* |
| Description | Description of the alarm<br><br>***Note:*** *See Appendix A for a full list of alarm descriptions* |
| Severity | **Major**, **Minor, Warning** |
| [Close] | Click **<Close>** to close the Active Alarm List dialog box |
| [Save to File...] | Click **<Save to File...>** to save the  Port Active Alarm List to a file<br><br>***Note:*** *In the File of type field, select **Acrobat (*pdf)** or **HTML (*.htm)**.* |
| [Print...] | Click **<Print...>** to print the Port Active Alarm List |
| [Refresh] | Click **<Refresh>** to update the Port Active Alarm List |

## 2.7  Repeater Level – Fault Menu

The **Fault** menu allows you to display active alarms at the repeater level.
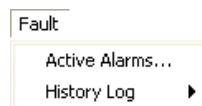


*Figure 2-15. Repeater Level Fault Menu*

### Displaying the Active Alarms at the Repeater Level

The **Active Alarms** command enables you to display the active alarms at the repeater level.

➤ **To display the active alarms at the repeater level:**

1.   In the RADview ASMi-52 window, select a repeater.

2.   Select **Fault > Active Alarms…**

***Note***   *You can sort the Active Alarm List by clicking any of the column headings.*
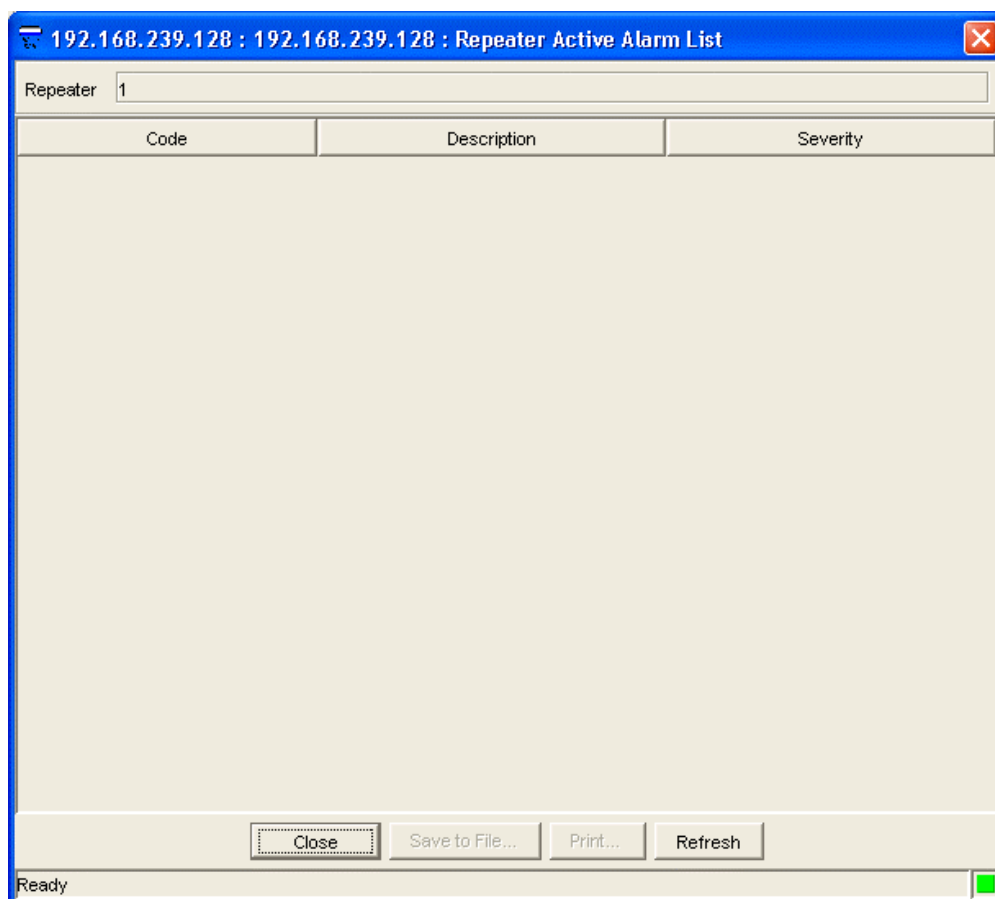
*Figure 2-16.  Repeater Active Alarm List Dialog Box*

*Table 2-8.  Repeater Active Alarm List Parameters*

| Parameter | Possible Values / Remarks |
|-----------|---------------------------|
| Repeater | **1…8** |
| Code | Alarm code<br>**44…49** |
| Description | Description of the alarm<br><br>*Note: See Appendix A for a full list of alarm descriptions* |
| Severity | **Major**, **Minor, Warning** |
| [Close] | Click **<Close>** to close the Repeater Active Alarm List dialog box |
| [Save to File...] | Click **<Save to File...>** to save the  Repeater Active Alarm List to a file<br><br>*Note: In the File of type field, select **Acrobat (\*pdf)** or **HTML (\*.htm)*** |
| [Print...] | Click **<Print...>** to print the Repeater Active Alarm List |
| [Refresh] | Click **<Refresh>** to update the Repeater Active Alarm List dialog box |

## Displaying the History Log

The **History Log > List** command enables you to display the history log for alarms at the repeater level.

➤ **To display the history log for alarms at the repeater level:**

1. In the RADview ASMi-52 window, select a repeater.
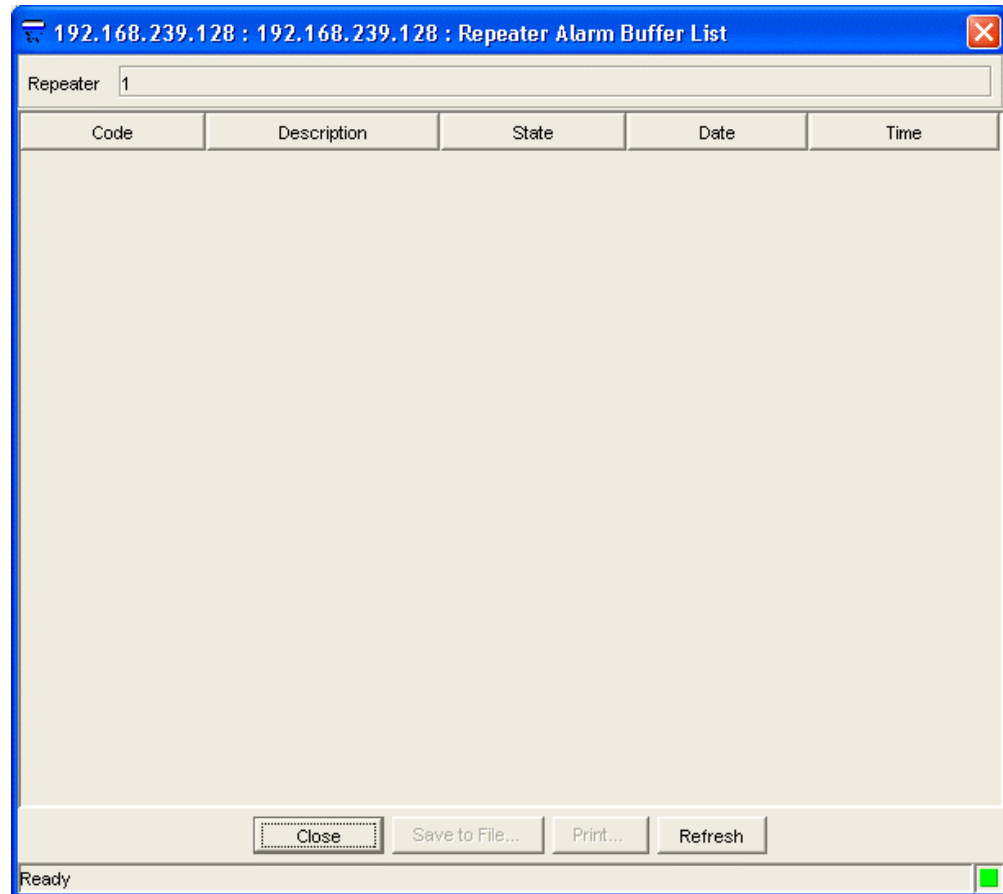
2. Select **Fault > History Log > List…**



*Figure 2-17.  Repeater Alarm Buffer List Dialog Box*

*Table 2-9.  Repeater Alarm Buffer List Parameters*

| Parameter | Possible Values / Remarks |
|---|---|
| Repeater | **1…8** |
| Code | Alarm code **44…49** |
| Description | Description of the alarm *Note: See Appendix A for a full list of alarm descriptions* |
| State | **On, Off** |
| Date | The date of the alarm, in the format YYYY-MM-DD |
| Time | The time of the event, in the format HH:MM:SS |

*Table 2-9.  Repeater Alarm Buffer List Parameters (Cont.)*

| Parameter | Possible Values / Remarks |
| --- | --- |
| [Close] | Click **<Close>** to close the Repeater Alarm Buffer List dialog box |
| [Save to File…] | Click **<Save to File…>** to save the  Repeater Alarm Buffer List to a file<br><br>*Note: In the File of type field, select **Acrobat (\*pdf)** or **HTML (\*.htm)*** |
| [Print…] | Click **<Print…>** to print the Repeater Alarm Buffer List |
| [Refresh] | Click **<Refresh>** to update the Repeater Alarm Buffer List dialog box |

# Chapter 3

# Configuration Management

The chapter describes the ASMi-52 configuration management at the system, modem, port, and repeater levels.

## 3.1 System Level – Configuration Menu

The system level **Configuration** menu provides you with options for viewing and modifying system configuration.
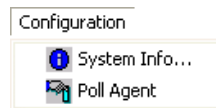


*Figure 3-1.  System Level Configuration Menu*

### Viewing and Setting System Information

The **System Info** command enables you to view and set general information about the system.

➤ **To view and set system information:**

1. At the system level, select **Configuration > System Info...**
   or
   From the Toolbar, click 🛈.

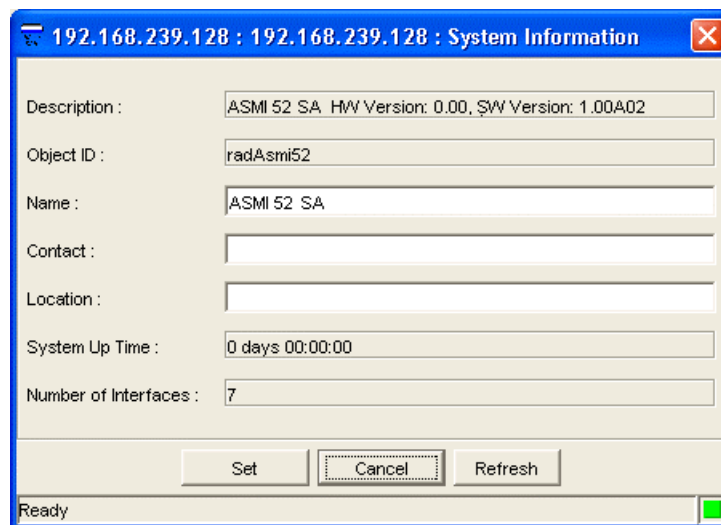2. Configure the desired parameters and click **<Set>**.



*Figure 3-2.  System Information Dialog Box*

*Table 3-1.  System Information Parameters*

| Parameter | Possible Values / Remarks |
|---|---|
| Description | Description of the device, including hardware and software versions |
| Object ID | Device's SNMP Object ID |
| Name | Name of the device, a string of up to 12 characters |
| Contact | Name of the person responsible for the functioning of this device, a string of up to 32 characters |
| Location | Exact location of this device, a string of up to 32 characters |
| System Up Time | Amount of time that elapsed since this device was reset, in the format X days HH:MM:SS |
| Number of Interfaces | Number of physical and logical interfaces on this device |
| [Set] | Click **<Set>** to set the system information configuration parameters |
| [Cancel] | Click **<Cancel>** to close the System Information dialog box |
| [Refresh] | Click **<Refresh>** to update the System Information dialog box |

## Polling the Agent

The **Poll Agent** command enables you to poll the Agent immediately.

➤ **To poll the Agent:**

- At the system level, select **Configuration > Poll Agent**.
  or
  From the Toolbar, click .

  The system immediately polls the Agent and updates the displayed information.

## 3.2  System Level – Options Menu

The Options menu allows you to view and configure the Host Interface List, the Manager List, and enable the polling option.
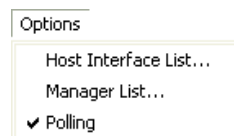


*Figure 3-3.  System Level Options Menu*

## Viewing the Host Interface List

The **Host Interface List** command enables you to view and configure the Host Interface List.

➤ **To display the Host Interface List:**

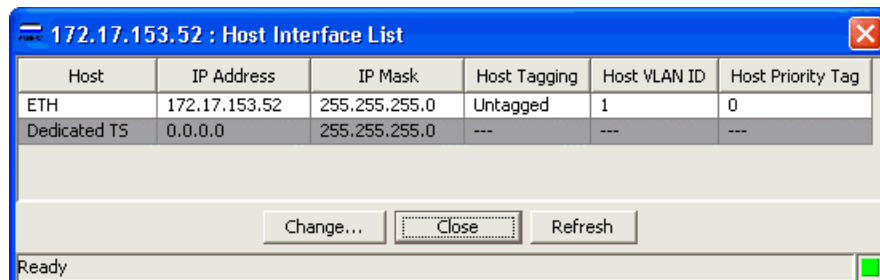- At the system level, select **Options > Host Interface List…**



*Figure 3-4.  Host Interface List Dialog Box*

*Table 3-2.  Host Interface List Parameters*

| Parameter | Possible Values / Remarks |
|---|---|
| Host | The name of the Host<br><br>**ETH, Dedicated TS** |
| IP Address | The IP address of the Host<br><br>*Note: An IP address of 0.0.0.0 indicates there is no Host* |
| IP Mask | The IP Mask of the Host<br><br>*Note: An IP address of 0.0.0.0 indicates there is no Host* |
| Host Tagging | **Tagged, Untagged** |
| Host VLAN ID | **1…4094** |
| Host Priority Tag | **0…7** |
| [Change] | Click **<Change>** to open the dialog box |
| [Close] | Click **<Close>** to close the Host Interface List dialog box |
| [Refresh] | Click **<Refresh>** to update the Host Interface List dialog box |

### Configuring Host Interface

➤ **To configure host interface:**

1. At the system level, select Options > Host Interface List…

2. Select the host interface you want to configure and click <**Change…**>.

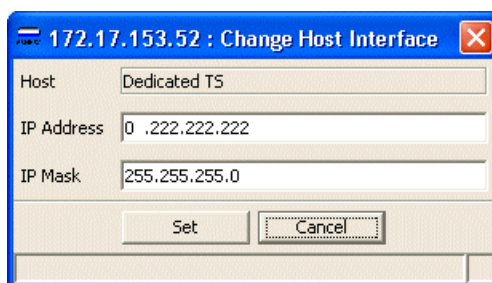3. Configure the desired parameters and click <**Set**>.

*Figure 3-5.  Host Interface Change Dialog Box*

*Table 3-3.  Host Interface Change Parameters*

| Parameter | Possible Values / Remarks |
|---|---|
| Host | The name of the Host |
| | **ETH, Dedicated TS** |
| IP Address | The IP address of the Host |
| | *Note: An IP address of 0.0.0.0 indicates there is no Host* |
| IP Mask | The IP Mask of the Host |
| | *Note: An IP address of 0.0.0.0 indicates there is no Host* |
| Host Tagging | **Tagged, Untagged** |
| | *Note: This field only exists if the Host type is ETH* |
| [Set] | Click **<Set>** to set the configured parameters |
| [Cancel] | Click **<Cancel>** to close the Host Interface Change dialog box |

# Configuring the Manager List

The **Manager List** command enables you to configure the Manager List.

➤ **To display the Manager List:**

- At the system level, select **Options > Manager List…**



*Figure 3-6.  Manager List Dialog Box*

*Table 3-4.  Manager List Parameters*

| Parameter | Possible Values / Remarks |
|---|---|
| Manager Id | The number of the Manager Id<br>**1…10** |
| IP Address | The IP address of the Manager<br><br>*Note: An IP address of 0.0.0.0 indicates there is no Manager* |
| IP Mask | The IP Mask of the Manager<br><br>*Note: An IP address of 0.0.0.0 indicates there is no Manager* |
| [Set] | Click **<Set>** to set the Manager List parameters |
| [Cancel] | Click **<Cancel>** to close the Manager List dialog box |
| [Refresh] | Click **<Refresh>** to update the Manager List dialog box |

## Setting the Polling Option

The **Polling** command enables you to toggle polling on/off.

➤ **To set the polling option:**

- At the system level, select **Options > Polling.**

  Polling is enabled, and the Agent is polled every 60 seconds.

| Note | *When polling is enabled, a checkmark appears to the left of the Polling menu item. When polling is disabled, a checkmark does not appear.* |
| --- | --- |

## 3.3  Modem Level – Configuration Menu

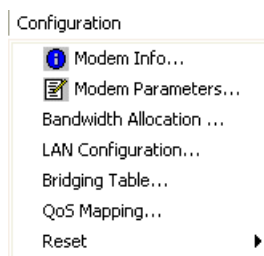The modem level **Configuration** menu allows you to view and set modem configuration.



*Figure 3-7.  Modem Level Configuration Menu*

## Viewing Modem Information

The **Modem Info** command enables you to view modem information.

| Note | *The parameters listed below do not appear for an unmanaged FE modem.* |
| --- | --- |

➤ **To view modem information:**

- At the modem level, select **Configuration > Modem Info…**
  or
  From the Toolbar, click .



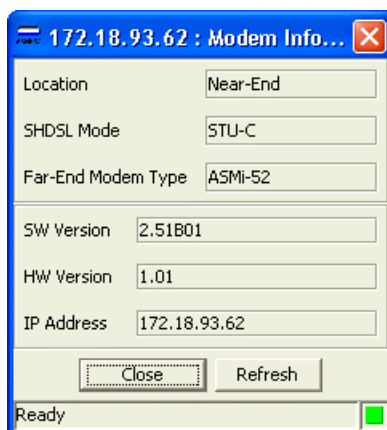*Figure 3-8.  Modem Information Dialog Box*

*Table 3-5.  Modem Information Parameters*

| Parameter | Possible Values / Remarks |
|---|---|
| Location | **Near-End, Far-End** |
| SHDSL Mode | **STU-C, STU-R** |
| Far-End Modem Type | **Unknown, ASMi-52, ASMi-52 Master, ASMi-52 Slave, ASMi-52/CD, ASMi-52/CQ, LRS-52, FCD-IP, FCD-IPM, D8SL, MP-SHDSL** |
| SW Version | The software version of the modem |
| HW Version | The hardware version of the modem |
| IP Address | The IP address of the modem |
| [Close] | Click **<Close>** to close the Modem Information dialog box |
| [Refresh] | Click **<Refresh>** to update the data in the Modem Information dialog box |

## Configuring the Modem Parameters

The **Modem Parameters** command enables you to configure the modem parameters.

*Note*     *This command is not available for an unmanaged FE modem.*

➤ **To configure modem parameters:**

1. At the modem level, select **Configuration > Modem Parameters…**
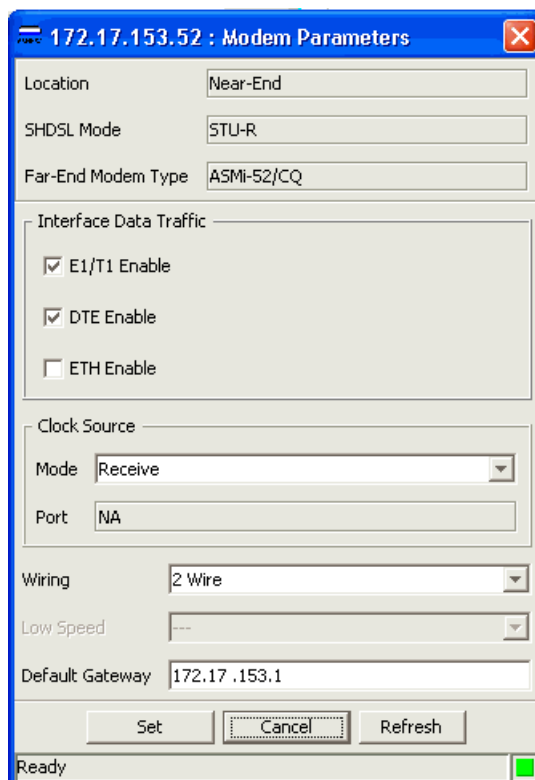
2. Configure the desired parameters and click **<Set>**.



*Figure 3-9.  Modem Parameters Dialog Box*

*Table 3-6.  Modem Parameters*

| Parameter | Possible Values / Remarks |
|---|---|
| Location | **Near-End, Far-End** |
| SHDSL Mode | **STU-C, STU-R** |
| Far-End Modem Type | **Unknown, ASMi-52, ASMi-52 Master, ASMi-52 Slave, ASMi-52/CD, ASMi-52/CQ, LRS-52, FCD-IP, FCD-IPM, D8SL, MP-SHDSL** |
| **Interface Data Traffic** | |
| E1/T1 Enable | **Checked, Unchecked** |
| DTE Enable | **Checked, Unchecked** |
| ETH Enable | **Checked, Unchecked** |
| **Clock Source** | |
| Mode | **Internal, External, Receive**<br>*Note: This field is read-only for the FE modem*<br>*Note: If you lose synchronization between the NE and FE modems (which occurs when the value for both of them is Receive), change the Receive value for one modem to another value* |
| Port | **E1/T1, DTE**<br>*Note: This field is read-only for the FE modem* |
| Wiring | **2 Wire, 4 Wire**<br>*Note: This field is read-only for a 2-wire modem* |
| Low Speed | **No, Yes, 0, ---**<br>*Note: This field is disabled only for an NE modem with existing DTE or a LAN connection*<br>*Note: This field is read-only if one of the ports has a MUX option or is of type E1/T1* |
| Default Gateway | The IP address of the default gateway for the modem<br>*Note: This field is disabled for the FE modem* |
| [Set] | Click **<Set>** to set the modem configuration parameters |
| [Cancel] | Click **<Cancel>** to close the Modem Parameters dialog box |
| [Refresh] | Click **<Refresh>** to update the Modem Parameters dialog box |

## Viewing Available Bandwidth

The **Bandwidth Allocation** command enables you to view available bandwidth and define time slot assignments.

*Note*  *This command is not available for an unmanaged FE modem.*

➤ **To view available bandwidth:**

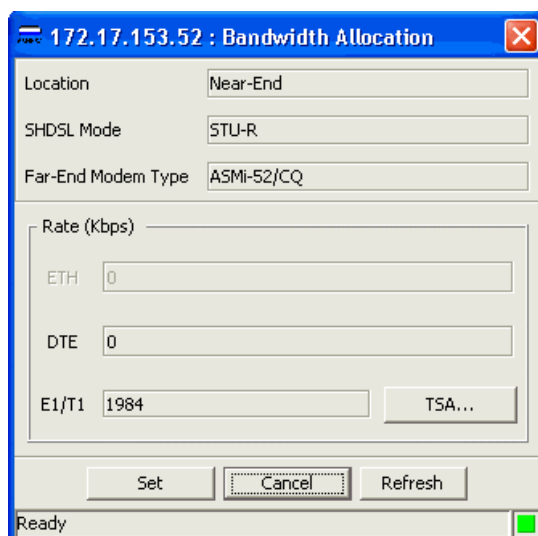• At the modem level, select **Configuration > Bandwidth Allocation…**

*Figure 3-10.  Bandwidth Allocation Dialog Box*

*Table 3-7.  Bandwidth Allocation Parameters*

| Parameter | Possible Values / Remarks |
|---|---|
| Location | **Near-End, Far-End** |
| SHDSL Mode | **STU-C, STU-R** |
| Far-End Modem Type | **Unknown, ASMi-52, ASMi-52 Master, ASMi-52 Slave, ASMi-52/CD, ASMi-52/CQ, LRS-52, FCD-IP, FCD-IPM, D8SL, MP-SHDSL** |
| **Rate** | |
| ETH | Enabled when a data port is Ethernet.<br>Select the required data rate from the available values. See *Table 3-8* and *Table 3-9* for the available data rates |
| DTE | Enabled when a data port is Serial DTE.<br>Select the required data rate from the available values. See *Table 3-8* and *Table 3-9* for the available data rates<br>In order to increase the possible bandwidth allocation user lower E1/T1 timeslots. |
| E1/T1 | Enabled when a data port is E1/T1.<br>Select the required data rate from the available values. See *Table 3-8* and *Table 3-9* for the available data rates |
| TSA | Click <**TSA**> to open the Time Slot Assignments dialog box |
| Far-End E1 TSs | **0...31**<br>This parameter is used to define the time slots when the remote modem is not connected, or is an ASMi-52 multiplexer unit.<br>This parameter is available in version 2.5 and above units only.<br>Set the parameter when the local modem is STU-C and E1 line type is unframed |
| [Set] | Click **<Set>** to set the modem configuration parameters |
| [Cancel] | Click **<Cancel>** to close the Modem Parameters dialog box |
| [Refresh] | Click **<Refresh>** to update the Modem Parameters dialog box |

*Table 3-8.  ASMi-52 Data Rates*

| DTE Interface and Clock Mode | | Line Interface | |
|---|---|---|---|
| **Local ASMi-52** | **Remote ASMi-52** | **2-wire** | **4-wire** |
| Serial DTE interface, internal clock | Serial DTE interface | n × 64 kbps (n = 1, 2, … 32, 36) | n × 128 kbps (n = 1, 2, …32, 36) |
| Serial DTE interface, external clock | Serial DTE interface | n × 64 kbps (n = 1, 2, …, 36) | n × 128 kbps (n = 1, 2, …, 36) |
| Serial DTE interface | E1 DTE interface | n × 64 kbps (n = 3, 4, …, 32) | n × 128 kbps (n = 3, 4, …, 16) |
| E1 DTE interface | Serial DTE interface | n × 64 kbps (n = 3, 4, …, 32) | n × 128 kbps (n = 3, 4, …, 16) |
| E1 DTE interface | E1 DTE interface | n × 64 kbps (n = 1, 2, …, 32) | n × 64 kbps (n = 1, 2, …, 32) |
| T1 DTE interface | T1 DTE interface | n × 64 kbps (n = 1, 2, …, 24) | n × 64 kbps (n = 1, 2, …, 24) |
| Multiplexer | Serial/E1 DTE (any) interface | n × 64 kbps (n = 1, 2, …, 32) | n × 64 kbps (n = 1, 2, …, 32) |

*Table 3-9.  ASMi-52 Data Rates (Low Speed Mode)*

| Unit and DTE Interface Type | | Line Interface | |
|---|---|---|---|
| **Local Unit** | **Remote Unit** | **2-wire** | **4-wire** |
| ASMi-52 in low speed mode | ASMi-52 in low speed mode | n × 64 kbps (n = 1, 2, …, 32) | n × 64 kbps (n = 1, 2, …, 32) |
| | ASMi-52 with serial DTE interface | n × 64 kbps (n = 3, 4, …, 32) | n × 128 kbps (n = 3, 4, …, 16) |
| | ASMi-52 with E1 DTE interface | n × 64 kbps (n = 1, 2, …, 32) | n × 64 kbps (n = 1, 2, …, 32) |

## Defining the Time Slot Assignment

The **TS Assignment** command enables you to define the time slots at the E1 and T1 port levels.

*Note*    *All time slot values for the FE modem are read-only.*

➤ **To define the time slot at the E1 and T1 port levels:**

1.  At the modem level, select **Configuration > Bandwidth Allocation…**

2.  Click **TSA…** in the E1/T1 field.

3.  Configure the desired parameters and click **<OK>**.

*Figure 3-11.  T1 TSA Dialog Box*



*Figure 3-12.  E1 TSA Dialog Box*

*Table 3-10.  E1 (or T1) TSA Parameters*

| Parameter | Possible Values / Remarks |
|---|---|
| Location | **Near-End, Far-End** |
| SHDSL Mode | **STU-C, STU-R** |
| Port | **E1, T1** |
| Far-End Modem Type | **Unknown, ASMi-52, ASMi-52 Master, ASMi-52 Slave, ASMi-52/CD, ASMi-52/CQ, LRS-52, FCD-IP, FCD-IPM, D8SL, MP-SHDSL** |

| Parameter | Possible Values / Remarks |
|---|---|
| [OK] | Click **<OK>** to set the time slot configuration parameters as displayed in the Near End Modem and Far End Modem tables |
| | *Note: This button is disabled if only one port is supported* |
| | *Note: If you remove all table values of type Mng TS, a warning message will appear indicating that the Agent may be disconnected* |
| [Cancel] | Click **<Cancel>** to close the E1 (or T1) TSA dialog box |
| [Group…] | Click **<Group…>** to define time slot groups |
| | *Note: This button is only enabled when no table cell is selected* |
| | Refer to *Defining Time Slot Groups* |
| [Data] | Click **<Data>** to change the TS type of the selected time slot to Data |
| | *Note: This button is only enabled when a lower gray table cell is selected* |
| [Mng] | Click **<Mng>** to change the TS type of the selected time slot to Mng |
| | *Note: This button is only enabled when the Inband Mng value in the Port Parameters Dialog Box is not None, and when a lower gray table cell is selected* |
| | Refer to *Configuring the Parameters for the E1 Port* |
| [Disconnect] | Click **<Disconnect>** to remove a time slot connection |
| | *Note: This button is only enabled when a yellow or green table cell is selected* |
| [Reset All] | Click **<Reset All>** to remove all time slot connections |
| | *Note: A warning message will appear* |
| [Refresh] | Click **<Refresh>** to update the data in the E1 (or T1) TSA dialog box |

### Defining Time Slot Groups

The **Group** button enables you to define time slot groups.

**Note**   *This command is not available for the FE modem.*

➤ **To define time slot groups:**

1. At the modem level, select Configuration > Bandwidth Allocation…

2. Click **TSA…** in the E1/T1 field.

3. Click **<Group…>**.

4. Configure the desired parameters and click **<OK>**.
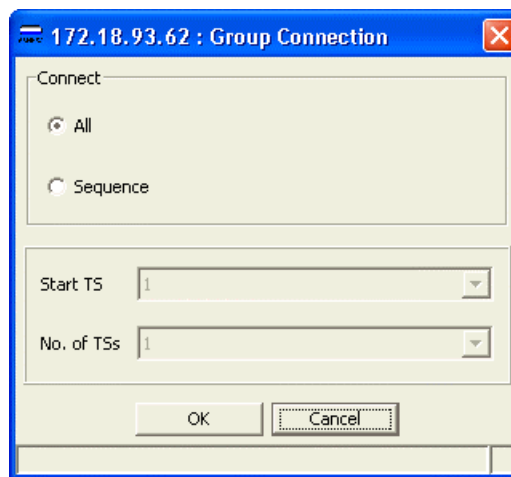
*Figure 3-13.  Group Connection Dialog Box*

*Table 3-11.  Group Connection Parameters*

| Parameter | Possible Values / Remarks |
|---|---|
| **Connect** | |
| All | Click the radio button to the left of **<All>** to transfer all time slots to the G.SHDSL line |
| | *Note: The No. of TSs and Start TS fields will be disabled* |
| Sequence | Click the radio button to the left of **<Sequence>** to specify a specific time slot sequence |
| | *Note: The No. of TSs and Start TS fields will be enabled* |
| Start TS | The first time slot in the group<br>**1…31** (E1)<br>**1…24** (T1)<br>Default: **1**<br><br>*Note: If the Line Type value in the Port Parameters Dialog Box is E1-MF (G732S) or E1-CRC-MF (G732SCRC), you cannot select the value 16 for this field*<br><br>Refer to *Configuring the Parameters for the E1 Port* |
| No. of TSs | The total number of time slots in the group<br>**1…31** (E1)<br>**1…24** (T1)<br>Default: **1** |
| [OK] | Click **<OK>** to set the time slot group parameters |
| [Cancel] | Click **<Cancel>** to close the Group Connection dialog box |

## Configuring the LAN

The **LAN Configuration** command enables you to configure the LAN.

*Note*      *This command is not available for an unmanaged FE modem.*

➤ **To configure the LAN:**

1.  At the modem level, select Configuration > LAN Configuration…

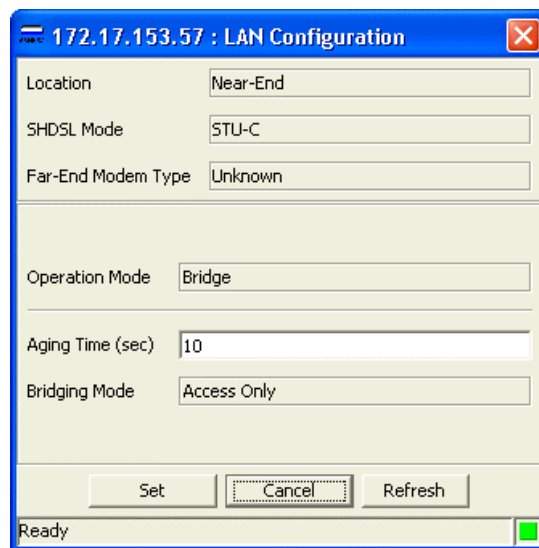2.  Configure the desired parameters and click **<Set>**.

*Figure 3-14.  LAN Configuration Dialog Box*

*Table 3-12.  LAN Configuration Parameters*

| Parameter | Possible Values / Remarks |
|---|---|
| Location | **Near-End, Far-End** |
| SHDSL Mode | **STU-C, STU-R** |
| Far-End Modem Type | **Unknown, ASMi-52, ASMi-52 Master, ASMi-52 Slave, ASMi-52/CD, ASMi-52/CQ, LRS-52, FCD-IP, FCD-IPM, D8SL, MP-SHDSL** |
| Operation Mode | **Bridge**<br><br>*Note: This field is read-only* |
| Aging Time (sec) | **10…1000000**<br>Default: **10**<br><br>*Note: This field is disabled when the Operation Mode is Transparent* |
| Bridging Mode | **Access & Switch, Access Only**<br>Default: **Access & Switch**<br><br>*Note: This field is read-only* |
| [Set] | Click **<Set>** to update the **Aging Timeout** (sec) and **Operation Mode** fields |
| [Cancel] | Click **<Cancel>** to close the LAN Configuration dialog box |
| [Refresh] | Click **<Refresh>** to update the data in the LAN Configuration dialog box |

## Configuring the Bridging Table

The **Bridging Table** command enables you to configure the Bridging Table.

*Note*    *This command is not available for an unmanaged FE modem.*

➤    **To configure the Bridging Table:**

1.    At the modem level, select **Configuration > Bridging Table…**
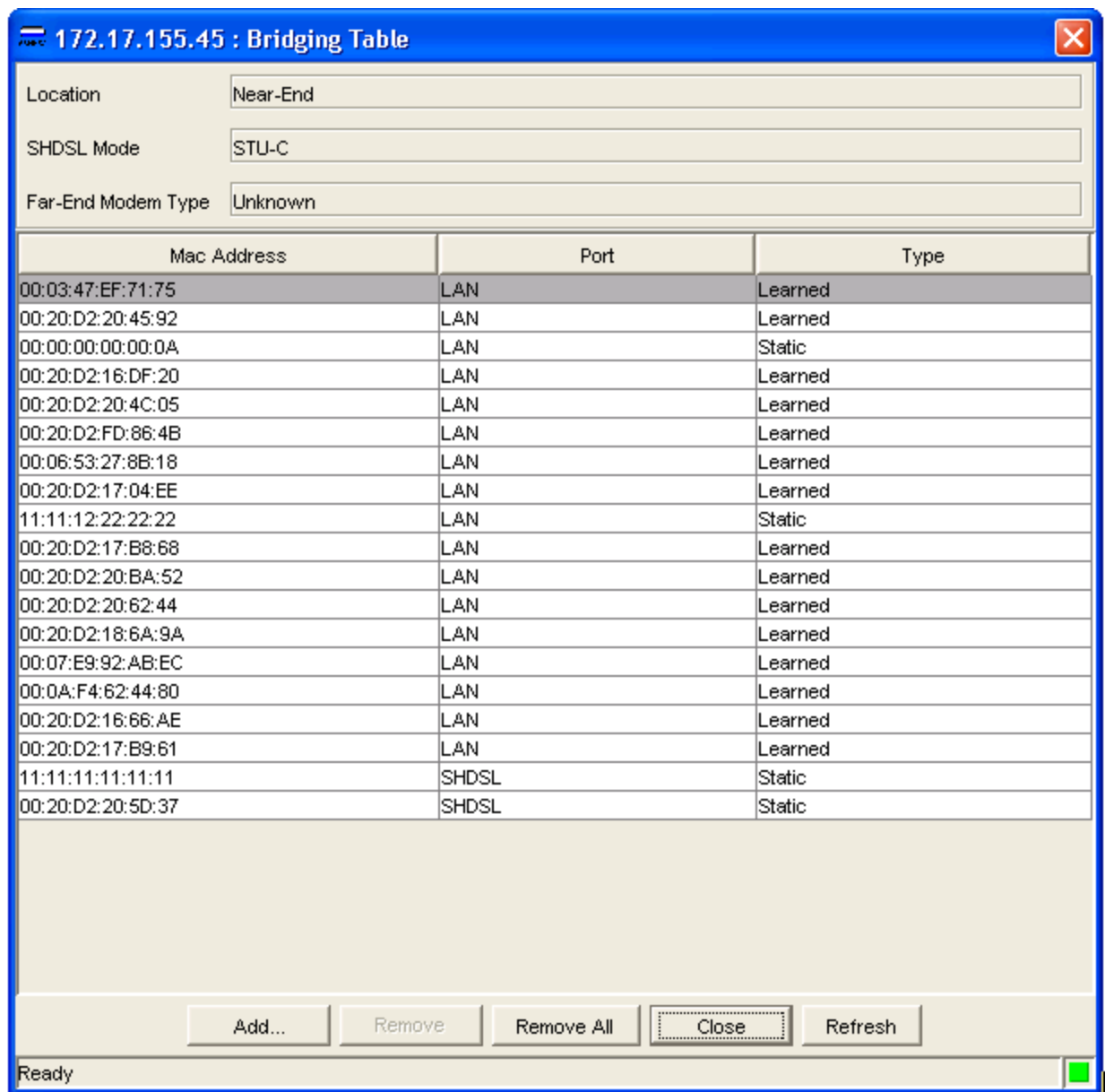
2.    Configure the desired parameters and click **<Set>**.

| Mac Address | Port | Type |
|---|---|---|
| 00:03:47:EF:71:75 | LAN | Learned |
| 00:20:D2:20:45:92 | LAN | Learned |
| 00:00:00:00:00:0A | LAN | Static |
| 00:20:D2:16:DF:20 | LAN | Learned |
| 00:20:D2:20:4C:05 | LAN | Learned |
| 00:20:D2:FD:86:4B | LAN | Learned |
| 00:06:53:27:8B:18 | LAN | Learned |
| 00:20:D2:17:04:EE | LAN | Learned |
| 11:11:12:22:22:22 | LAN | Static |
| 00:20:D2:17:B8:68 | LAN | Learned |
| 00:20:D2:20:BA:52 | LAN | Learned |
| 00:20:D2:20:62:44 | LAN | Learned |
| 00:20:D2:18:6A:9A | LAN | Learned |
| 00:07:E9:92:AB:EC | LAN | Learned |
| 00:0A:F4:62:44:80 | LAN | Learned |
| 00:20:D2:16:66:AE | LAN | Learned |
| 00:20:D2:17:B9:61 | LAN | Learned |
| 11:11:11:11:11:11 | SHDSL | Static |
| 00:20:D2:20:5D:37 | SHDSL | Static |

*Figure 3-15.  Bridging Table Dialog Box*

*Table 3-13. Bridging Table Parameters*

| Parameter | Possible Values / Remarks |
|---|---|
| Location | **Near-End, Far-End** |
| SHDSL Mode | **STU-C, STU-R** |
| Far-End Modem Type | **Unknown, ASMi-52, ASMi-52 Master, ASMi-52 Slave, ASMi-52/CD, ASMi-52/CQ, LRS-52, FCD-IP, FCD-IPM, D8SL, MP-SHDSL** |
| Mac Address | MAC address of the bridging table |
| Port | **LAN, SHDSL, E1** or **T1** |
| Type | **Learned, Static** |
| [Add…] | Click **<Add>** to add a static entry to the Bridging Table<br><br>Refer to *Adding a Static Entry to the Bridging Table* |
| [Remove] | Click **<Remove>** to delete a selected static entry from the Bridging Table |
| [Remove All] | Click **<Remove All>** to remove all selected static entries |
| [Close] | Click **<Close>** to close the Bridging Table dialog box |
| [Refresh] | Click **<Refresh>** to update the data in the Bridging Table dialog box |

### Adding a Static Entry to the Bridging Table

The **Add** button in the Bridging Table dialog box enables you to add a static entry to the table.

➤ **To add a static entry to the Bridging Table:**

1. At the modem level, select **Configuration > Bridging Table…**
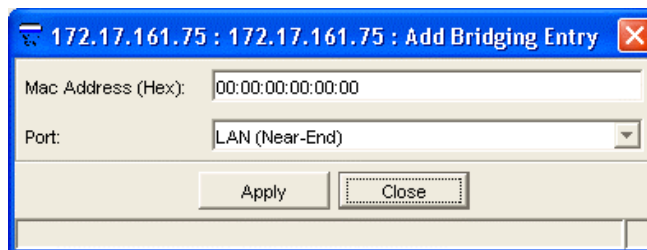
2. Click **<Add…>** in the Bridging Table dialog box.



*Figure 3-16. Bridging Table: Add Static Entry Dialog Box*

*Table 3-14. Bridging Table: Add Static Entry Parameters*

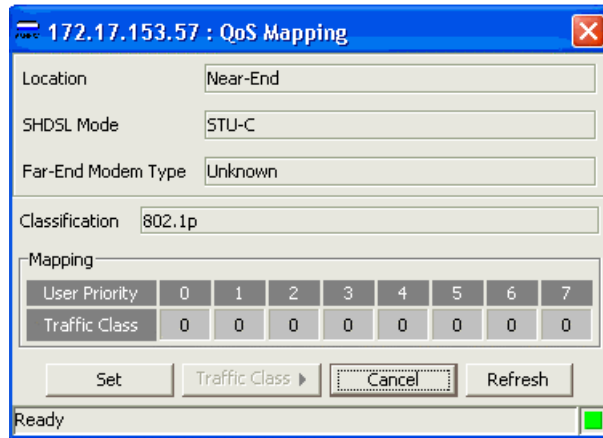| Parameter | Possible Values / Remarks |
|---|---|
| Mac Address (Hex) | MAC address of the static entry |
| Port | **LAN (Near-End), SHDSL (Near-End), E1/T1 (Near-End)**<br>Default: **LAN (Near-End)**<br><br>***Note:*** *This field displays a value only when a port physically exists in the modem* |
| [Apply] | Click **<Apply>** to add the new entry to the Bridging Table |
| [Close] | Click **<Close>** to close the Bridging Table: Add Static Entry dialog box |

## Configuring QoS Mapping



*Figure 3-17.  QoS Mapping Dialog Box*

*Table 3-15.  QoS Mapping Parameters*

| Parameter | Possible Values / Remarks |
|---|---|
| Location | **Near-End, Far-End** |
| SHDSL Mode | **STU-C, STU-R** |
| Far-End Modem Type | **Unknown, ASMi-52, ASMi-52 Master, ASMi-52 Slave, ASMi-52/CD, ASMi-52/CQ, LRS-52, FCD-IP, FCD-IPM, D8SL, MP-SHDSL** |
| Classification | **802.1p** |
| **Mapping** | |
| User Priority | **0…7** |
| Traffic Class | **0…3** |
| [Set] | Click **<Set>** to update the **Traffic Class** field |
| [Traffic Class] | When clicked this opens a sub-menu with the following values: 0 (= High) 1 2 3 (=Low) Selecting one of these sub-entries updates the Traffic Class value of the selected cell. *Note: This field is only enabled when a cell is selected.* |
| [Cancel] | Click **<Cancel>** to close the QoS Mapping dialog box |
| [Refresh] | Click **<Refresh>** to update the QoS Mapping dialog box |

## Resetting the Configuration

The **Reset** command enables you to reset the modem hardware, the modem configuration, and the modem line.

*Note*      *These commands are not available for an unmanaged or unknown FE modem.*

### Resetting the Modem Hardware

The **Reset > Modem HW** command enables you to reset the modem hardware.

➤ **To reset the modem hardware:**

- At the modem level, select **Configuration > Reset > Modem HW**.

    The modem hardware is reset.

### Resetting the Modem Configuration

The **Reset > Configuration** command enables you to reset the modem configuration.

➤ **To reset the modem configuration:**

- At the modem level, select **Configuration > Reset > Configuration**.

    The modem configuration is reset.

### Resetting the Line Configuration

The **Reset > Line** command enables you to reset the line configuration.

➤ **To reset the line configuration:**

- At the modem level, select **Configuration > Reset > Line**.

    The line configuration is reset.

## 3.4  Modem Level – Diagnostics Menu

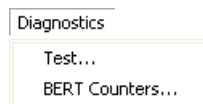The modem level **Diagnostics** menu allows you to test modem diagnostics.



*Figure 3-18.  Modem Level Diagnostics Menu*

## Testing the Modem Diagnostics

The **Test** command enables you to test the modem diagnostics.

*Note*      *This command is not available for the FE modem.*

➤ **To test the modem diagnostics:**

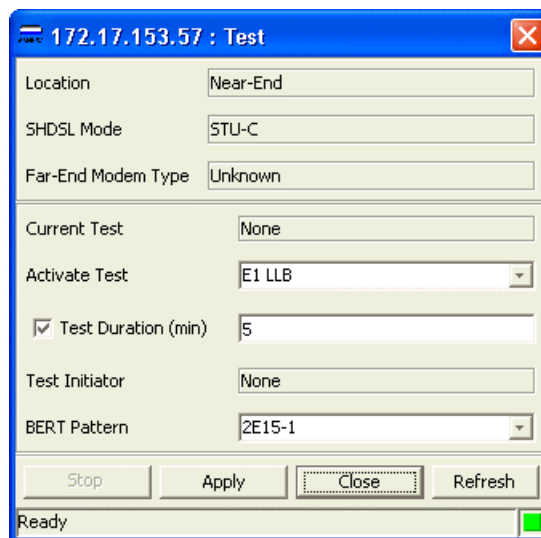- At the modem level, select **Diagnostics > Test…**

*Figure 3-19.  Test Dialog Box*

*Table 3-16.  Test Parameters*

| Parameter | Possible Values / Remarks |
|---|---|
| Location | **Near-End, Far-End** |
| SHDSL Mode | **STU-C, STU-R** |
| Far-End Modem Type | **Unknown, ASMi-52, ASMi-52 Master, ASMi-52 Slave, ASMi-52/CD, ASMi-52/CQ, LRS-52, FCD-IP, FCD-IPM, D8SL, MP-SHDSL** |
| Current Test | The test currently running on the port |
| Activate Test | **None, E1 RLB or T1 RLB, E1 LLB or T1 LLB, IR RLB, IR LLB, E1+IR RLB or T1+IR RLB, E1+IR LLB or T1+IR LLB, RLB, LLB, BERT, BERT+RLB**<br><br>*Note: Before running a new test, you must click <Stop> to stop the current test*<br><br>*Note: You can only run a new test when the Current Test value is None* |
| Test Duration (min) | The amount of time the test will run (in minutes)<br><br>Unchecked (Test Duration disabled), Checked (Test Duration enabled)<br>**1…4095**<br><br>*Note: If you insert a value outside the above range, the Status Bar will display an error message* |
| Test Initiator | **None, User, DTE** |
| BERT Pattern | **2E15-1, Alternate, Mark, Space** |
| [Stop] | Click **<Stop>** to stop the test<br><br>*Note: This button is enabled only when the Test Initiator value is User* |
| [Apply] | Click **<Apply>** to run the test<br><br>*Note: This button is only enabled when no test is currently running on both modems or if BERT is running on the FE modem and BERT is selected for the NE modem.* |
| [Close] | Click **<Close>** to close the Test dialog box |
| [Refresh] | Click **<Refresh>** to update the Test dialog box |

## Configuring BERT Testing

The **BERT Counters** command enables you to test the circuit diagnostics.

*Note*  *This command is not available for the FE modem.*

➤  **To test the circuit diagnostics:**

- At the modem level, select **Diagnostics > BERT Counters…**



*Figure 3-20.  BERT Counters Dialog Box*

*Table 3-17.  BERT Counters Parameters*

| Parameter | Possible Values / Remarks |
|---|---|
| Location | **Near-End, Far-End** |
| SHDSL Mode | **STU-C, STU-R** |
| Far-End Modem Type | **Unknown, ASMi-52, ASMi-52 Master, ASMi-52 Slave, ASMi-52/CD, ASMi-52/CQ, LRS-52, FCD-IP, FCD-IPM, D8SL, MP-SHDSL** |
| BERT Pattern | **2E15-1, Alternate, Mark, Space** |
| Sync Status | **Sync Loss, Sync** |
| **BERT Counters** | **Current** – Displays the new updated counters |
| | **Delta** – Displays the difference between the new counter and the last counter |

| Parameter | Possible Values / Remarks |
|---|---|
| Run Time (sec) | Time elapsed since BERT started to run (sec) |
| Errored Seconds | Number of errored seconds detected since BERT started to run |
| Sync Loss (sec) | Number of times Sync Loss was detected since BERT started to run |
| Error Bits | Number of Error Bits detected since BERT started to run |
| BERT Result | Number of Error Bits divided by the total number of bits |
| **Inject Error Command** | *Note: This group only exists for the NE modem* |
| [Single] | Click <**Single**> to inject errors to the FE modem |
| [Polling] | Click <**Polling**> to open the Polling Interval dialog box. Select the polling interval in seconds and click <**Set**> to accept the change |
| [Close] | Click **<Close>** to close the BERT Counters dialog box |
| [Refresh] | Click **<Refresh>** to refresh the BERT Counters dialog box |

## 3.5  SHDSL Link Port Level – Configuration Menu

The **Configuration** menu enables you to configure at the SHDSL Link port level.
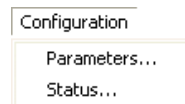


*Figure 3-21.  SHSDL Link Port Level Configuration Menu*

### Configuring the SHDSL Link Port Parameters

The **Parameters** command enables you to configure the SHDSL Link port parameters.

➤ **To configure the SHDSL Link port parameters:**

1. At the SHDSL Link port level, select **Configuration > Parameters…**

2. Configure the desired parameters and click **<Set>**.

*Figure 3-22.  Port Parameters Dialog Box*

*Table 3-18.  SHDSL Link Port Parameters*

| Parameter | Possible Values / Remarks |
| --- | --- |
| Location | **Near-End, Far-End** |
| SHDSL Mode | **STU-C, STU-R** |
| Port | **CONTROL, ETH, SHDSL Link, E1, T1, DTE (V.35, X.21, RS-530)** |
| Far-End Modem Type | **Unknown, ASMi-52, ASMi-52 Master, ASMi-52 Slave, ASMi-52/CD, ASMi-52/CQ, LRS-52, FCD-IP, FCD-IPM, D8SL, MP-SHDSL** |
| SHDSL Transmission Mode | **Annex A, Annex B**<br><br>*Note: This field is read-only for the FE modem* |
| EOC Compatible | **Proprietary, Standard**<br><br>*Note: This field is read-only* |
| Power Backoff | **Enable, Disable** |

| Parameter | Possible Values / Remarks |
|---|---|
| Line Probe Enable | **Enable, Disable** |
| | *Note:* *This field is enabled for a 2-wire NE modem with a SHDSL Mode of type STU-C* |
| | *Note:* *This field is read-only for the FE modem* |
| Current SNR Margin (dB) | Unchecked (Current SNR Margin disabled), Checked (Current SNR Margin enabled) **-10…+10** |
| | *Note:* *This field is read-only for the NE modem, or when the Line Probe is disabled* |
| Worst Case SNR Margin (dB) | Unchecked (Worst Case SNR Margin disabled), Checked (Worst Case SNR Margin enabled) **-10…+10** |
| | *Note:* *This field is read-only for the NE modem, or when the Line Probe is disabled* |
| Power Spectral Density (PSD) Mask | **Symmetric, Asymmetric** |
| | *Note:* *This field is read-only for the FE modem, or for a modem with an SHDSL Mode of STU-C and when the Line Probe is disabled* |
| Loop Attenuation Threshold (dB) | Unchecked (Loop Attenuation Threshold disabled), Checked (Loop Attenuation Threshold enabled) **1…127** |
| | *Note:* *This field is read-write only when the SHDSL Mode is STU-C* |
| SNR Margin Threshold (dB) | Unchecked (SNR Margin Threshold disabled), Checked (SNR Margin Threshold enabled) **1…15** |
| | *Note:* *This field is read-write only when the SHDSL Mode is STU-C* |
| [Set] | Click **<Set>** to set the port configuration parameters |
| [Cancel] | Click **<Cancel>** to close the Port Parameters dialog box |
| [Refresh] | Click **<Refresh>** to update the Port Parameters dialog box |

## Viewing the SHDSL Link Port Status Configuration

The **Status** command enables you to view the SHDSL Link port status configuration.

*Note*   *This command does not display status values for the FE modem.*

➤ **To view the SHDSL Link port status configuration:**

• At the SHDSL Link port level, select **Configuration > Status…**

*Figure 3-23.  Port Status Dialog Box*

*Table 3-19.  Port Status Parameters*

| Parameter | Possible Values / Remarks |
|---|---|
| Location | **Near-End, Far-End** |
| SHDSL Mode | **STU-C, STU-R** |
| Port | **CONTROL, ETH, SHDSL Link, E1, T1, DTE (V.35, X.21, RS-530)** |
| Far-End Modem Type | **Unknown, ASMi-52, ASMi-52 Master, ASMi-52 Slave, ASMi-52/CD, ASMi-52/CQ, LRS-52, FCD-IP, FCD-IPM, D8SL, MP-SHDSL** |
| Connected Modem/Port No: | For an LRS Quad card, FE modem number **1…4** <br> For a DXC DSL card, external port number **1…n** <br> For a MP MSL card, external port number **1…n** <br> For an LRS-52 modem, **1…24** <br> All other modems, **NA** <br><br> *Note: This field is only visible for a NE modem connected to one of the above options* |
| Line Rate (Kbps) | The line rate of the port (in kilobytes per second) |
| Tip Ring | **Normal, Reversed** |
| Line Status | **No Sync, Sync** |
| SHDSL State | **Idle Mode, Data Mode, Boot Upload, Boot Upload Done, Startup Handshake in Progress, Startup Training in Progress, Framer Sync in Progress, Local Analog Loopback in Progress, Remote Core Loopback in Progress, Local Digital Loopback in Progress, Spectrum Test in Progress** |

| Parameter | Possible Values / Remarks |
|---|---|
| Loop Attenuation (dB) | **0…127** |
| SNR Margin (dB) | **0…15** |
| Tx Power (dBm) | The Tx Power of the port, in the format x.y<br>**1…6500.0** |
| Power Back Off (dB) | **0…6** |
| [Close] | Click **<Close>** to close the Port Status dialog box |
| [Refresh] | Click **<Refresh>** to update the Port Status dialog box |

## 3.6  Ethernet Port Level – Configuration Menu

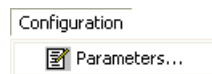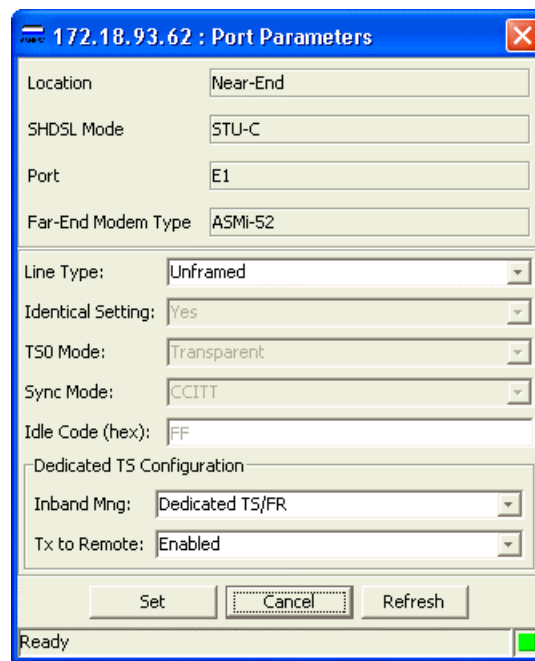The **Configuration** menu enables you to configure at the ETH port level.
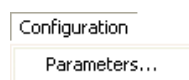


*Figure 3-24.  ETH Port Level Configuration Menu*

### Configuring the ETH Port Parameters

The **Parameters** command enables you to configure the ETH port parameters.

➤ **To configure the ETH port parameters:**

1.  At the ETH port level, select **Configuration > Parameters…**

2.  Configure the desired parameters and click **<Set>**.
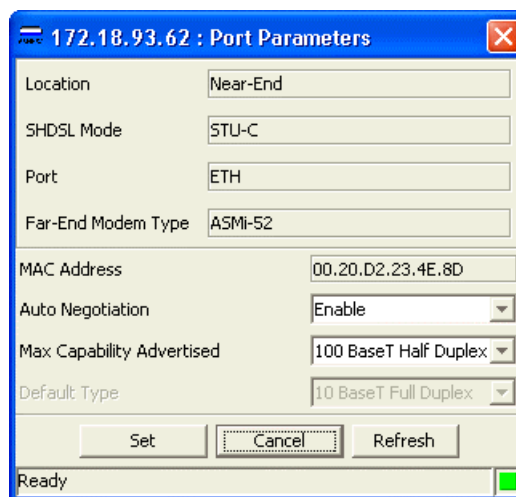


*Figure 3-25.  Port Parameters Dialog Box*

*Table 3-20.  Ethernet Port Parameters*

| Parameter | Possible Values / Remarks |
|---|---|
| Location | **Near-End, Far-End** |
| SHDSL Mode | **STU-C, STU-R** |
| Port | **CONTROL, ETH, SHDSL Link, E1, T1, DTE (V.35, X.21, RS-530)** |
| Far-End Modem Type | **Unknown, ASMi-52, ASMi-52 Master, ASMi-52 Slave, ASMi-52/CD, ASMi-52/CQ, LRS-52, FCD-IP, FCD-IPM, D8SL, MP-SHDSL** |
| MAC Address | MAC address of the ETH port |
| Auto Negotiation (NE modem only) | **Enable, Disable** |
| Max Capability Advertised (NE modem only) | **10 Base-T Half Duplex, 10 Base-T Full Duplex, 100 Base-TX Half Duplex, 100 Base-TX Full Duplex** <br> *Note:* *This field is available only if the auto-negotiation is enabled* |
| Default Type (NE modem only) | **10 Base-T Half Duplex, 10 Base-T Full Duplex, 100 Base-TX Half Duplex, 100 Base-TX Full Duplex** <br> *Note:* *This field is available only if the auto-negotiation is disabled* |
| [Set] | Click **<Set>** to set the port configuration parameters |
| [Cancel] | Click **<Cancel>** to close the Parameters dialog box |
| [Refresh] | Click **<Refresh>** to update the Parameters dialog box |

## 3.7  E1 and T1 Port Levels – Configuration Menu

The **Configuration** menu enables you to configure at the E1 and T1 port levels.



*Figure 3-26.  E1 (or T1) Port Level Configuration Menu*

## Configuring the Parameters for the E1 Port

The **Parameters** command enables you to configure the E1 port parameters.

➤ **To configure the parameters for the E1 port:**

1.  At the E1 port level, select **Configuration > Parameters…**

2.  Configure the desired parameters and click **<Set>**.

*Figure 3-27.  Port Parameters Dialog Box*

*Table 3-21.  Port Parameters*

| Parameter | Possible Values / Remarks |
|---|---|
| Location | **Near-End, Far-End** |
| SHDSL Mode | **STU-C, STU-R** |
| Port | **CONTROL, ETH, SHDSL Link, E1, T1, DTE (V.35, X.21, RS-530)** |
| Far-End Modem Type | **Unknown, ASMi-52, ASMi-52 Master, ASMi-52 Slave, ASMi-52/CD, ASMi-52/CQ, LRS-52, FCD-IP, FCD-IPM, D8SL, MP-SHDSL** |
| Line Type | The line type of the E1 port<br>**Unframed, E1 (G732N), E1-CRC (G732N-CRC), E1-MF (G732S)**<br><br>***Note:*** *This field is read-only for the FE modem* |
| Identical settings | Whether the configuration settings are the same for the FE modem<br>**No, Yes**<br><br>***Note:*** *This field is read-only for the FE modem* |
| TS0 Mode | The time slot mode of the port<br>**Looped, Transparent**<br><br>***Note:*** *This field is read-only for the FE modem* |
| Sync Mode | The synchronization mode of the E1 port<br>**TR-62411, CCITT, FAST**<br><br>***Note:*** *This field is read-only for the FE modem* |
| Idle Code (hex) | The idle code of the E1 port<br>**0…FF**<br><br>***Note:*** *This field is read-only for the FE modem* |
| **Dedicated TS Configuration** | |
| Inband Mng | The inband management type of the DTS configuration<br>**None, Dedicated TS/FR**<br><br>***Note:*** *This field is unavailable for the FE modem* |
| Tx to Remote | **Disable, Enable**<br><br>***Note:*** *This field is available for the FE modem when it is connected to an E1* |
| [Set] | Click **<Set>** to set the port configuration parameters<br><br>***Note:*** *If you change the Line Type value to Unframed or the Same Far End Settings value to Yes (when the SHDSL Mode is of type STU-R), a confirmation message will appear indicating that the time slot assignment will be deleted*<br><br>***Note:*** *If you change one of the DTS Configuration values, a confirmation message will appear indicating that the Agent may be disconnected* |
| [Cancel] | Click **<Cancel>** to close the Port Parameters dialog box |
| [Refresh] | Click **<Refresh>** to update the Port Parameters dialog box |

## Configuring the Parameters for the T1 Port

The **Parameters** command enables you to configure the T1 port parameters.

➤ **To configure the parameters for the T1 port:**

1. At the T1 port level, select **Configuration > Parameters…**

2. Configure the desired parameters and click **<Set>**.

*Table 3-22.  Port Parameters*

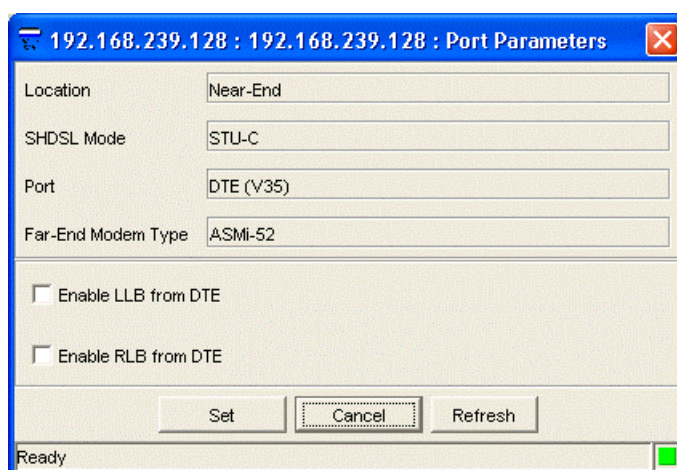| Parameter | Possible Values / Remarks |
|---|---|
| Location | **Near-End, Far-End** |
| SHDSL Mode | **STU-C, STU-R** |
| Port | **CONTROL, ETH, SHDSL Link, E1, T1, DTE (V.35, X.21, RS-530)** |
| Far-End Modem Type | **Unknown, ASMi-52, ASMi-52 Master, ASMi-52 Slave, ASMi-52/CD, ASMi-52/CQ, LRS-52, FCD-IP, FCD-IPM, D8SL, MP-SHDSL** |
| Line Type | The line type of the T1 port<br>**Unframed, ESF, D4 (SF)** |
| Line Code | The line code of the T1 port<br>**B8ZS, AMI** |
| Rx Gain | The Rx gain of the T1 port<br>**Short Haul, Long Haul** |
| Line Mode | The line mode of the T1 port<br>**CSU, DSU** |
| Tx Gain (dB) | The Tx gain of the T1 port<br>**7.5, 15.0, 22.5**<br><br>*Note: This field is only enabled when the Line Mode value is "CSU"* |
| Line Length (ft) | **0-133, 134-266, 267-399, 400-533, 534-655**<br><br>*Note: This field is only enabled when the Line Mode value is "DSU"* |
| Identical Settings | Whether the FE settings for the two ends of the T1 port line are the same<br>**No, Yes** |
| Sync Mode | The synchronization mode of the T1 port<br>**TR-62411, CCITT, FAST** |
| Idle Code (hex) | The idle code of the T1 port<br>**0…FF** |
| Signaling Mode | **None, Robbed Bit** |
| **Dedicated TS Configuration** | |
| Inband Mng | The inband management type of the DTS configuration<br>**None, Dedicated TS/FR** |
| Tx to Remote | **Disable, Enable**<br><br>*Note: This field is available for the FE modem when it is connected to an E1* |

| Parameter | Possible Values / Remarks |
|---|---|
| [Set] | Click **<Set>** to set the port configuration parameters |
| | *Note: If you changed the Line Type value to "Unframed" or the Same Far End Settings value to "Yes", then a confirmation message appears indicating that the time slot assignment will be deleted* |
| | *Note: If you changed one of the DTS Configuration values, a confirmation message appears indicating that these changes may disconnect the Agent* |
| [Cancel] | Click **<Cancel>** to cancel the setting of the port configuration parameters |
| [Refresh] | Click **<Refresh>** to update the data in the Port Parameters dialog box |

# 3.8  DTE (V.35, RS-530) Port Level – Configuration Menu

The **Configuration** menu enables you to configure at the DTE (V.35, RS-530) port level.
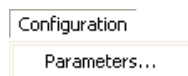


*Figure 3-28.  DTE (V.35, RS-530) Level Configuration Menu*

## Configuring the DTE (V.35, RS-530) Port Parameters

The **Parameters** command enables you to configure the parameters for the DTE (V.35, RS-530) port.

**Note**    *This command is not available for the DTE (X.21) port.*

**Note**    *The Enable LLB from DTE and Enable RLB from DTE checkboxes that appear below are disabled for the FE modem when it is unmanaged or unknown.*

➤    **To configure the port parameters:**

1.  At the DTE (V.35, RS-530) port level, select **Configuration > Parameters…**

2.  Configure the desired parameters and click **<Set>**.

*Figure 3-29.  DTE (V.35, RS-530) Port Parameters Dialog Box*

*Table 3-23.  DTE (V.35, RS-530) Port Parameters*

| Parameter | Possible Values / Remarks |
|---|---|
| Location | **Near-End, Far-End** |
| SHDSL Mode | **STU-C, STU-R** |
| Port | **CONTROL, ETH, SHDSL Link, E1, T1, DTE (V.35**, **RS-530)** |
| Far-End Modem Type | **Unknown, ASMi-52, ASMi-52 Master, ASMi-52 Slave, ASMi-52/CD, ASMi-52/CQ, LRS-52, FCD-IP, FCD-IPM, D8SL, MP-SHDSL** |
| Enable LLB from DTE | Enables the local loop back option for the data terminal equipment<br><br>Unchecked (disabled)<br>Checked (enabled) |
| Enable RLB from DTE | Enables the remote loop back option for the data terminal equipment<br><br>Unchecked (disabled)<br>Checked (enabled) |
| [Set] | Click **<Set>** to set the port configuration parameters |
| [Cancel] | Click **<Cancel>** to cancel the setting of the port configuration parameters |
| [Refresh] | Click **<Refresh>** to update the data in the DTE (V.35, RS-530) Port Parameters dialog box |

## 3.9  CONTROL Port Level – Configuration Menu

The **Configuration** menu enables you to configure at the CONTROL port level.
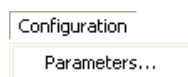


*Figure 3-30.  CONTROL Port Level Configuration Menu*

## Configuring the CONTROL Port Parameters

The **Parameters** command enables you to configure the CONTROL port parameters.

***Note***       *This command is not available for the FE modem.*

➤ **To configure the CONTROL port parameters:**

1. At the CONTROL port level, select **Configuration > Parameters…**

2. Configure the desired parameters and click **<Set>**.



*Figure 3-31.  Port Parameters Dialog Box*

*Table 3-24.  Port Parameters*

| Parameter | Possible Values / Remarks |
|---|---|
| Location | **Near-End, Far-End** |
| SHDSL Mode | **STU-C, STU-R** |
| Port | **CONTROL** |
| Far-End Modem Type | **Unknown, ASMi-52, ASMi-52 Master, ASMi-52 Slave, ASMi-52/CD, ASMi-52/CQ, LRS-52, FCD-IP, FCD-IPM, D8SL, MP-SHDSL** |
| Rate (bps) | The rate of the CONTROL port (in bits per second) **9600, 19200, 38400, 57600, 115200** |
| Data Bits | **7, 8** |
| Parity | **None, Odd, Even** |
| CTS | **ON, RTS** |
| Interface | **DCE, DTE** |
| DCD Delay (msec) | **0, 10, 50, 100, 200, 300** (in milliseconds) *Note: This field is disabled when the Interface value is DCE* |
| DSR | **ON, DTE** *Note: This field is disabled when the Interface value is DTE* |
| Mode | **Terminal, Dial Out, NMS SLIP, SMS PPP** |
| Call Out Mode | **None, All, Major** |
| Dial Retries | **0…8** |
| Wait for Connect (sec) | **30, 45, 60** |
| Dial Mode | **Tone, Pulse** |
| Primary Dial No. | *Note: The maximum number of characters for this field is 20* |
| Alternate No. Use | **No, Yes** |
| Alternate Dial No. | *Note: The maximum number of characters for this field is 20* |
| [Set] | Click **<Set>** to set the port configuration parameters |
| [Cancel] | Click **<Cancel>** to close the Port Parameters dialog box |
| [Refresh] | Click **<Refresh>** to update the Port Parameters dialog box |

## 3.10    Repeater Level – Configuration Menu

The **Configuration** menu enables you to configure at the repeater level.
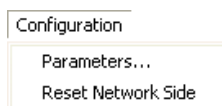


*Figure 3-32.  Repeater Level Configuration Menu*

# Configuring the Repeater Parameters

The **Parameters** command enables you to configure the repeater parameters.

➤ **To configure the repeater parameters:**

1.  At the repeater level, select **Configuration > Parameters…**
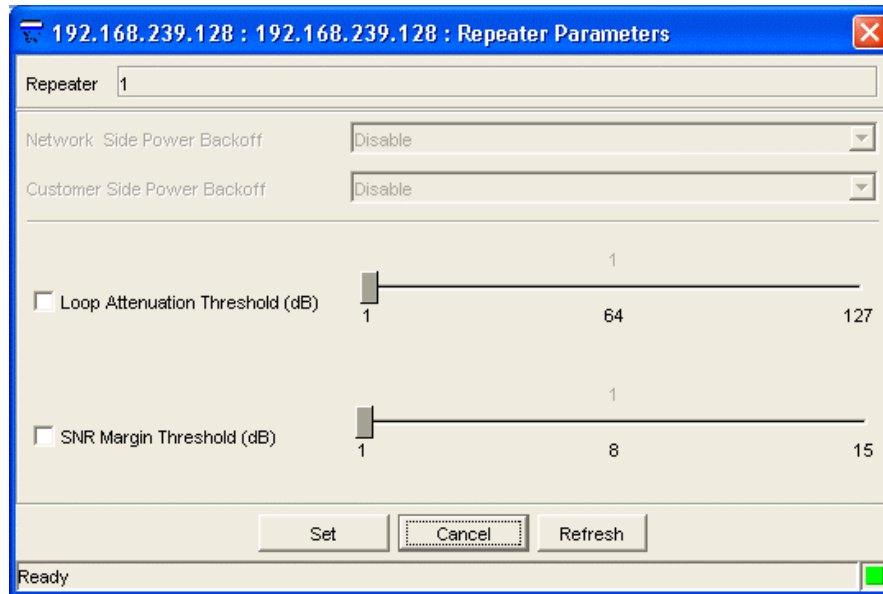
2.  Configure the desired parameters and click **<Set>**.



*Figure 3-33.  Repeater Parameters Dialog Box{need new graphic}*

*Table 3-25.  Repeater Parameters*

| Parameter | Possible Values / Remarks |
|---|---|
| Repeater | **1…8** |
| Wiring | **2 Wire, 4 Wire** |
| Loop Attenuation Threshold (dB) | Unchecked (Loop Attenuation Threshold disabled), Checked (Loop Attenuation Threshold enabled) **1…127** *Note: This field is read-write when the SHDSL Mode is STU-C and read-only when the SHDSL Mode is STU-R* |
| SNR Margin Threshold (dB) | Unchecked (SNR Margin Threshold disabled), Checked (SNR Margin Threshold enabled) **1…15** *Note: This field is read-write when the SHDSL Mode is STU-C and read-only when the SHDSL Mode is STU-R* |
| [Set] | Click **<Set>** to set the repeater configuration parameters |
| [Cancel] | Click **<Close>** to close the Repeater Parameters dialog box |
| [Refresh] | Click **<Refresh>** to update the Repeater Parameters dialog box |

## Resetting the Repeater Network Side

The **Reset Network Side** command enables you to reset the repeater network side.

➤ **To reset the repeater network side:**

1. In the RADview ASMi-52 window, select one of the three repeaters.

2. Select **Configuration > Reset Network Side**.

   The repeater network side is reset.

## 3.11    Repeater Level – Diagnostics Menu

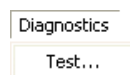The repeater level **Diagnostics** menu allows you to test repeater diagnostics.



*Figure 3-34.  Repeater Level Diagnostics Menu*

## Testing the Repeater Diagnostics

The **Test** command enables you to test the repeater diagnostics.

➤ **To test the repeater diagnostics:**

• At the repeater level, select **Diagnostics > Test…**
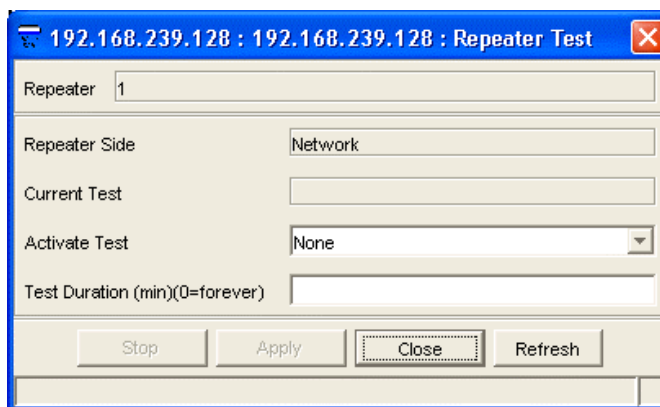


*Figure 3-35.  Repeater Test Dialog Box*

*Table 3-26.  Repeater Test Parameters*

| Parameter | Possible Values / Remarks |
|---|---|
| Repeater | **1…8** |
| Repeater Side | **Network** |
|  | *Note: This field is read-only* |
| Current Test | **None, RLB** |

| Parameter | Possible Values / Remarks |
|---|---|
| Activate Test | **None, RLB**<br>Default: **RLB**<br><br>*Note:* *You cannot enter the value None while a test is currently running* |
| Test Duration (min)(0=forever) | The amount of time the test will last (in minutes)<br>**0…4095**<br><br>*Note:* *The value 0 indicates that the test will run indefinitely* |
| [Stop] | Click **<Stop>** to stop the test<br><br>*Note:* *This button is only enabled when a test is running on one of the ports*<br><br>*Note:* *A confirmation message will appear, and the data will be updated* |
| [Apply] | Click **<Apply>** to run the test<br><br>*Note:* *This button is only enabled when a test is not running on one of the ports*<br><br>*Note:* *A confirmation message will appear, and the data will be updated* |
| [Close] | Click **<Close>** to close the Repeater Test dialog box |
| [Refresh] | Click **<Refresh>** to update the Repeater Test dialog box |

# Chapter 4

# Performance Monitoring

This chapter describes the RADview options for viewing and clearing statistics information for ASMi-52. These options also include setting the Polling Interval.

## 4.1 System Level – Statistics Menu

The **Statistics** menu allows you to set the Polling Interval at the system level.
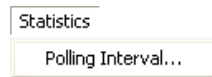
*Figure 4-1. System Level Statistics Menu*

### Setting the Polling Interval

The **Polling Interval** command enables you to set the Polling Interval at the system level.

➤ **To set the Polling Interval at the system level:**

1. At the system level, select **Statistics > Polling Interval…**

2. Enter the desired parameter and click **<Set>**.
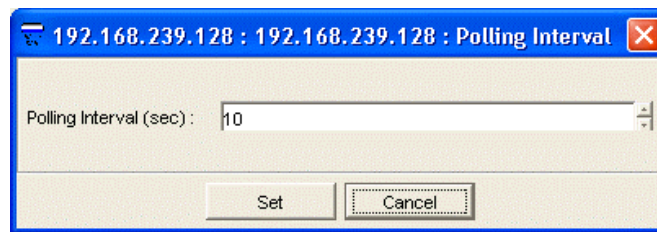
*Figure 4-2. Polling Interval Dialog Box*

*Table 4-1. Polling Interval Parameters*

| Parameter | Possible Values/Remarks |
|---|---|
| Polling Interval (sec) | The interval at which the Agent will be polled (in seconds)<br>**5, 10, 15…60**<br>Default: **10**<br><br>*Note: The value you enter will be the interval used for both the current and running Agent statistics on all ports* |
| [Set] | Click **<Set>** to set the Polling Interval |
| [Cancel] | Click **<Cancel>** to close the Polling Interval dialog box |

## 4.2  Modem Level – Statistics Menu

The **Statistics** menu allows you to clear modem statistics at the modem level.
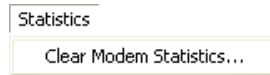


*Figure 4-3.  Modem Level Statistics Menu*

### Clearing Modem Statistics

The **Clear Modem Statistics** command enables you to clear statistics at the modem level.

**Note**     *This command is unavailable for the FE modem.*

➤ **To clear statistics at the modem level:**

- At the modem level, select **Statistics > Clear Modem Statistics…**

  The modem statistics are cleared.

## 4.3  SHDSL Link Port Level – Statistics Menu

The **Statistics** menu allows you to view and clear statistics data at the SHDSL Link port level.
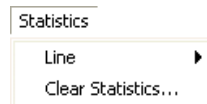


*Figure 4-4.  SHDSL Link Port Level Statistics Menu*

**Note**     *For modems with 2-wire line pairs, the word Line appears in the title bar of the dialog box. For modems with 4-wire line pairs, the word Line-A or Line-B appears in the title bar of the dialog box.*

### Viewing Current 15-Minute Data for the SHDSL Link Port

The **Line > 15 min Current Data** command enables you to view port data from the beginning of the current 15-minute interval.

➤ **To view port data from the beginning of the current 15-minute interval:**

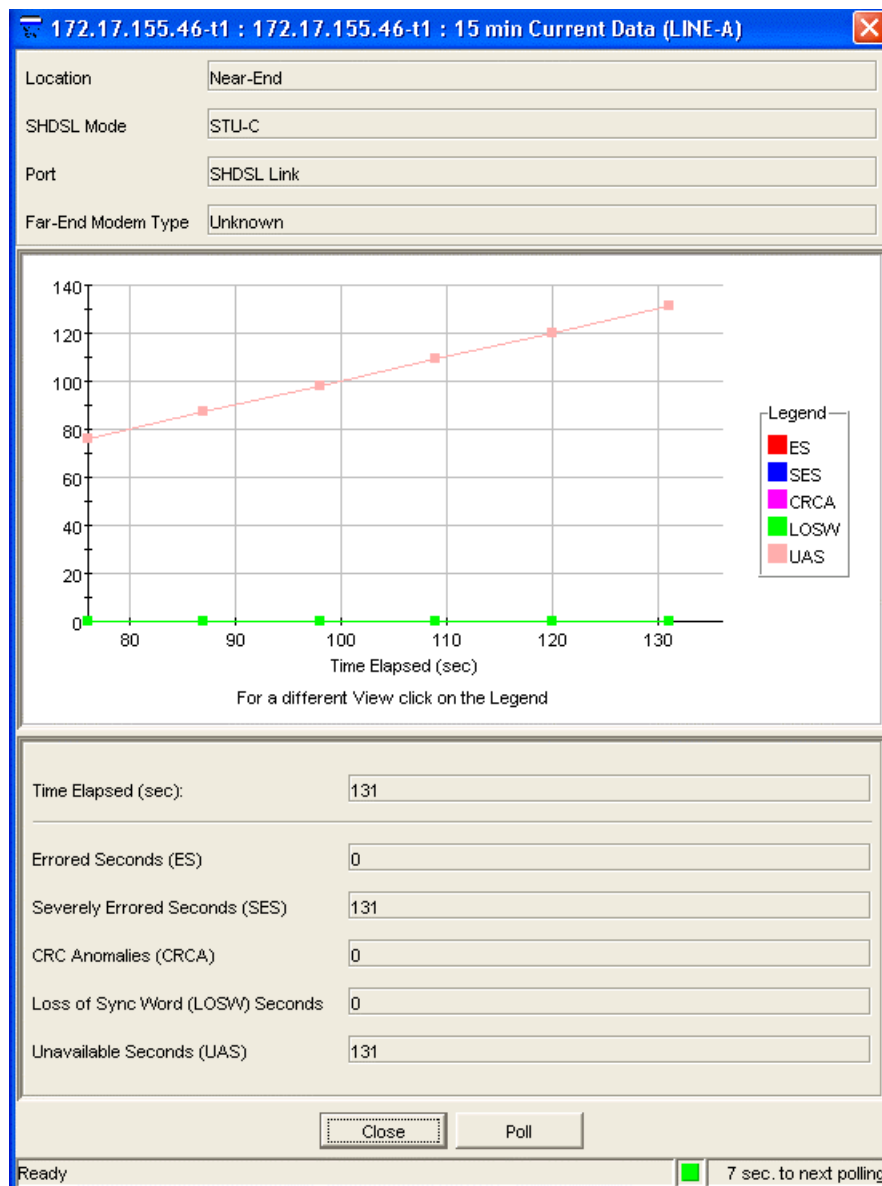- At the SHDSL Link port level, select **Statistics > Line > 15 min Current Data…**

*Figure 4-5.  15 min Current Data Dialog Box*

*Table 4-2.  15 min Current Data Parameters*

| Parameter | Possible Values/Remarks |
|---|---|
| Location | **Near-End, Far-End** |
| SHDSL Mode | **STU-C, STU-R** |
| Port | **CONTROL, ETH, SHDSL Link, E1, T1, DTE (V.35, X.21, RS-530)** |
| Far-End Modem Type | **Unknown, ASMi-52, ASMi-52 Master, ASMi-52 Slave, ASMi-52/CD, ASMi-52/CQ, LRS-52, FCD-IP, FCD-IPM, D8SL, MP-SHDSL** |
| Time Elapsed (sec) | The number of seconds that have elapsed since the beginning of the current 15-minute interval<br>**0…899** |

*Table 4-2.  15 min Current Data Parameters (Cont.)*

| Parameter | Possible Values/Remarks |
| --- | --- |
| Errored Seconds (ES) | The number of errored seconds<br>**0…899** |
| Severely Errored Seconds (SES) | The number of severely errored seconds<br>**0…899** |
| CRC Anomalies (CRCA) | The CRC (Cyclical Redundancy Checking) anomalies that have occurred since the beginning of the current 15-minute interval |
| Loss of Sync Word (LOSW) Seconds | The number of sync word seconds that have been lost<br>**0…899** |
| Unavailable Seconds (UAS) | The number of unavailable seconds<br>**0…899** |
| [Close] | Click **<Close>** to close the 15 min Current Data dialog box |
| [Poll] | Click **<Poll>** to poll the Agent |

## Viewing One-Day Current Data for the SHDSL Link Port

The **Line > One Day Current Data** command enables you to view port data from the beginning of the current one-day interval.

➤ **To view port data from the beginning of the current one-day interval:**

- At the SHDSL Link port level, select **Statistics > Line > One Day Current Data...**
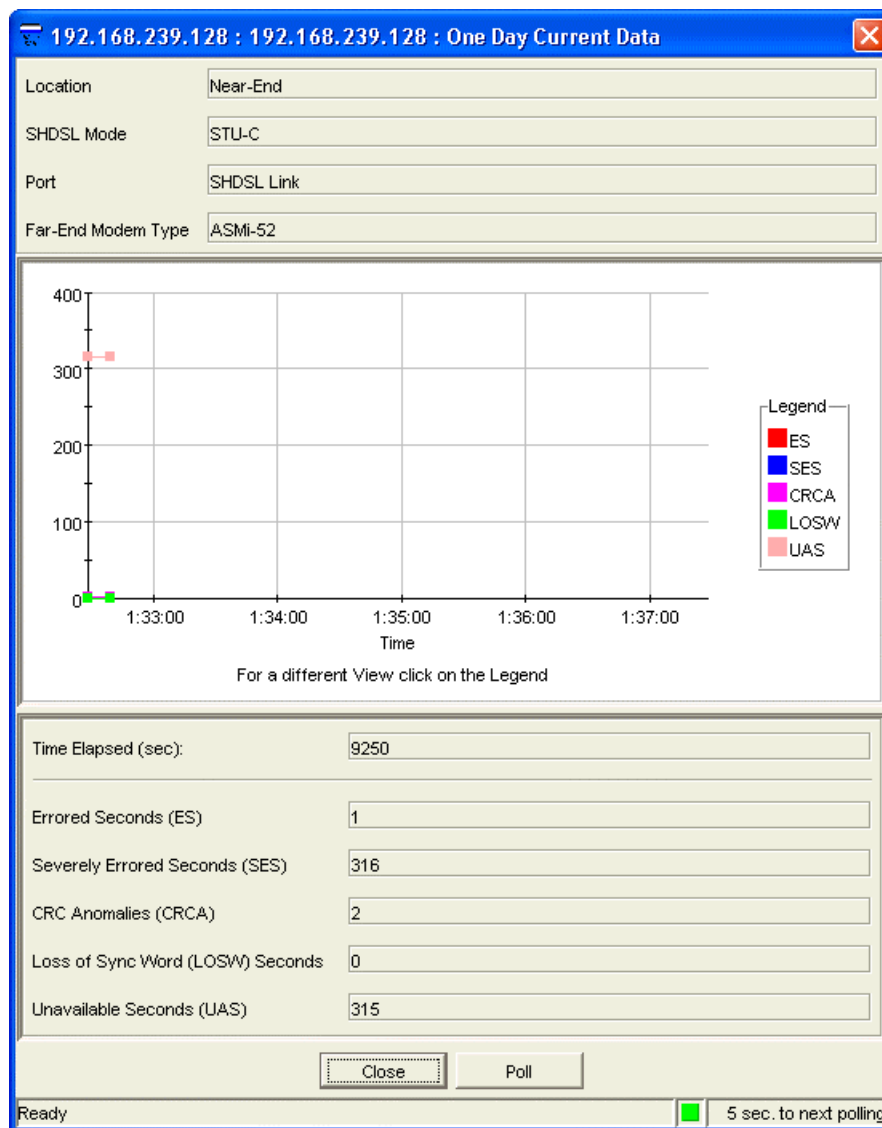
*Figure 4-6.  One Day Current Data Dialog Box*

*Table 4-3.  One Day Current Data Parameters*

| Parameter | Possible Values/Remarks |
|---|---|
| Location | **Near-End, Far-End** |
| SHDSL Mode | **STU-C, STU-R** |
| Port | **CONTROL, ETH, SHDSL Link, E1, T1, DTE (V.35, X.21, RS-530)** |
| Far-End Modem Type | **Unknown, ASMi-52, ASMi-52 Master, ASMi-52 Slave, ASMi-52/CD, ASMi-52/CQ, LRS-52, FCD-IP, FCD-IPM, D8SL, MP-SHDSL** |
| Time Elapsed (sec): | The number of seconds that have elapsed since the beginning of the current one-day interval <br> **0…86399** |
| Errored Seconds (ES) | The number of errored seconds <br> **0…86399** |

*Table 4-3 One Day Current Data Parameters (Cont.)*

| Parameter | Possible Values/Remarks |
| --- | --- |
| Severely Errored Seconds (SES) | The number of severely errored seconds<br>**0…86399** |
| CRC Anomalies (CRCA) | The CRC (Cyclical Redundancy Checking) anomalies that have occurred since the beginning of the current one-day interval |
| Loss of Sync Word (LOSWS) Seconds | The number of sync word seconds that have been lost<br>**0…86399** |
| Unavailable Seconds (UAS) | The number of unavailable seconds<br>**0…86399** |
| [Close] | Click **<Close>** to close the One Day Current Data dialog box |
| [Poll] | Click **<Poll>** to poll the Agent |

## Viewing 15-Minute Interval Data for the SHDSL Link Port

The **Line > 15 min Interval Data** command enables you to view port data for all 15-minute intervals over the last 24 hours.

➤ **To view port data for all 15-minute intervals over the last 24 hours:**

- At the SHDSL Link port level, select **Statistics > Line > 15 min Interval Data…**
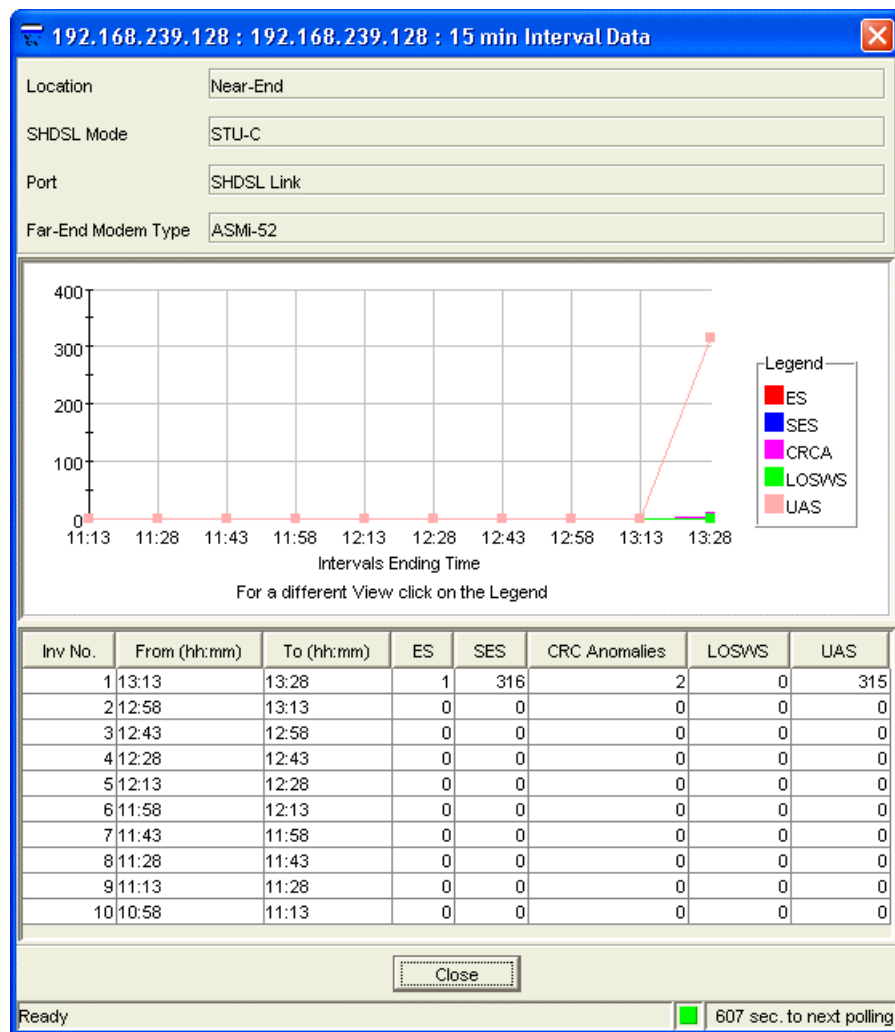
*Figure 4-7. 15 min Interval Data Dialog Box*

*Table 4-4.  15 min Interval Data Parameters*

| Parameter | Possible Values/Remarks |
|---|---|
| Location | **Near-End, Far-End** |
| SHDSL Mode | **STU-C, STU-R** |
| Port | **CONTROL, ETH, SHDSL Link, E1, T1, DTE (V.35, X.21, RS-530)** |
| Far-End Modem Type | **Unknown, ASMi-52, ASMi-52 Master, ASMi-52 Slave, ASMi-52/CD, ASMi-52/CQ, LRS-52, FCD-IP, FCD-IPM, D8SL, MP-SHDSL** |
| Inv. No. | The interval number **1…96** |
| From (hh:mm) | The time the interval began, in the format hh:mm |
| To (hh:mm) | The time the interval ended, in the format hh:mm |
| ES | The number of errored seconds **0…899** |

*Table 4-4.  15 min Interval Data Parameters (Cont.)*

| Parameter | Possible Values/Remarks |
|---|---|
| SES | The number of severely errored seconds<br>**0…899** |
| CRC Anomalies | The CRC (Cyclical Redundancy Checking) anomalies that have occurred since the beginning of the last 24-hour period |
| LOSWS | The number of sync word seconds that have been lost<br>**0…899** |
| UAS | The number of unavailable seconds<br>**0…899** |
| [Close] | Click **<Close>** to close the 15 min Interval Data dialog box |

## Viewing One-Day Interval Data for the SHDSL Link Port

The **Line > One Day Interval Data** command enables you to view SHDSL Link port data at one-day intervals.

➤ **To view port data at one-day intervals:**

- At the SHDSL Link port level, select **Statistics > Line > One Day Interval Data…**
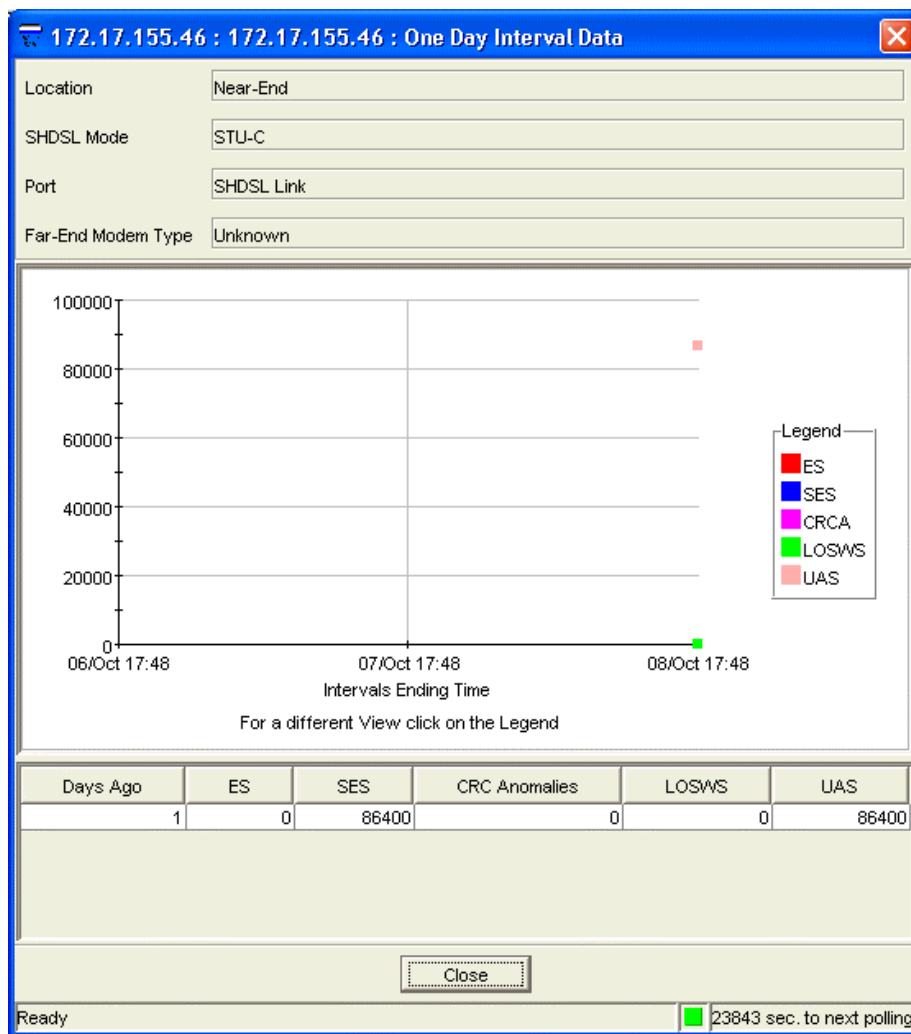
*Figure 4-8.  One Day Interval Data Dialog Box*

*Table 4-5.  One Day Interval Data Parameters*

| Parameter | Possible Values/Remarks |
|---|---|
| Location | **Near-End, Far-End** |
| SHDSL Mode | **STU-C, STU-R** |
| Port | **CONTROL, ETH, SHDSL Link, E1, T1, DTE (V.35, X.21, RS-530)** |
| Far-End Modem Type | **Unknown, ASMi-52, ASMi-52 Master, ASMi-52 Slave, ASMi-52/CD, ASMi-52/CQ, LRS-52, FCD-IP, FCD-IPM, D8SL, MP-SHDSL** |
| Days Ago | The number of daily intervals for which data is displayed <br> **1…7** <br><br> **Note:** *The field is empty when no table entries exist* |
| ES | The number of errored seconds |
| SES | The number of severely errored seconds |
| CRC Anomalies | The CRC (Cyclical Redundancy Checking) anomalies that have occurred since the beginning of the last 24-hour period |

*Table 4-5.  One Day Interval Data Parameters (Cont.)*

| Parameter | Possible Values/Remarks |
|-----------|-------------------------|
| LOSWS | The number of sync word seconds that have been lost |
| UAS | The number of unavailable seconds |
| [Close] | Click **<Close>** to close the One Day Interval Data dialog box |

## Viewing Accumulated Data for the SHDSL Link Port

The **Line > Accumulated Data** command enables you to view accumulated port data.

➤ **To view accumulated port data:**

- At the SHDSL Link port level, select **Statistics > Line > Accumulated Data**…
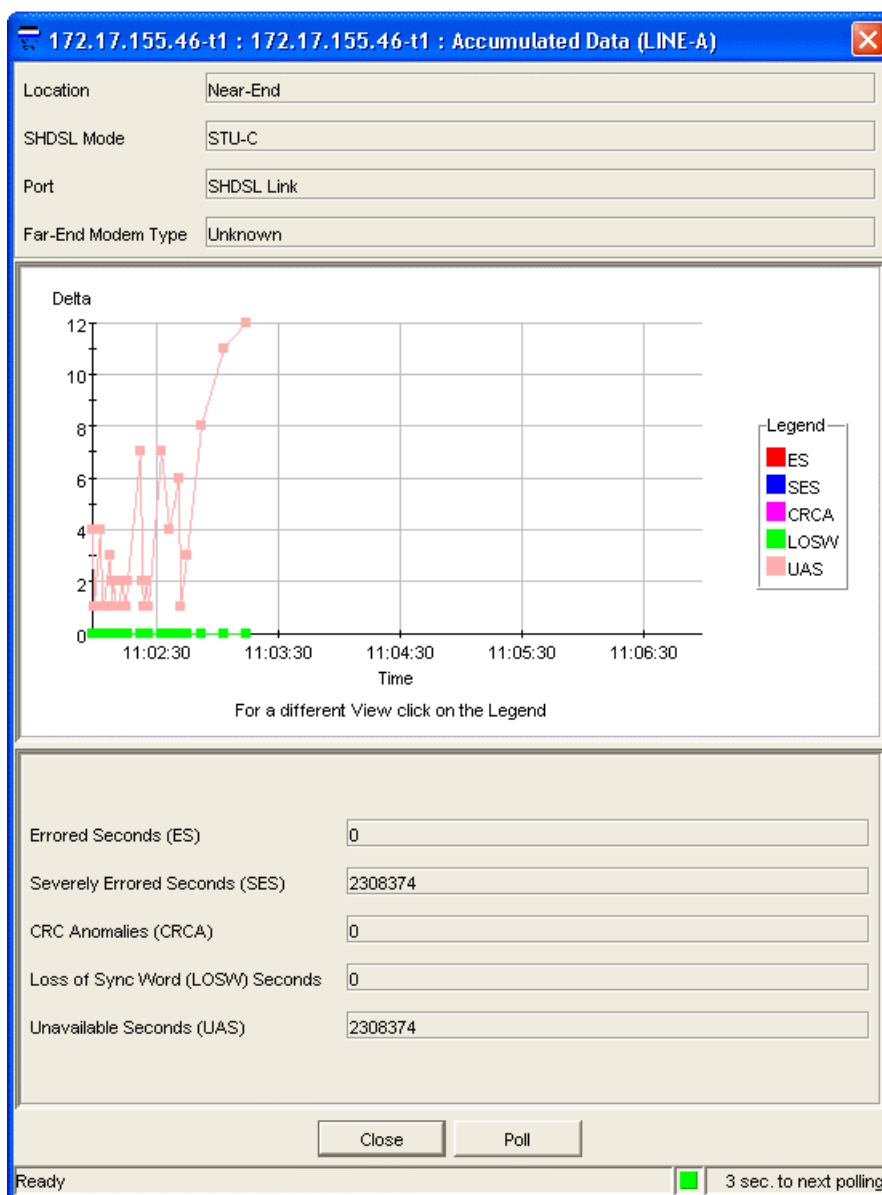


*Figure 4-9.  Accumulated Data Dialog Box*

*Table 4-6.  Accumulated Data Parameters*

| Parameter | Possible Values/Remarks |
|---|---|
| Location | **Near-End, Far-End** |
| SHDSL Mode | **STU-C, STU-R** |
| Port | **CONTROL, ETH, SHDSL Link, E1, T1, DTE (V.35, X.21, RS-530)** |
| Far-End Modem Type | **Unknown, ASMi-52, ASMi-52 Master, ASMi-52 Slave, ASMi-52/CD, ASMi-52/CQ, LRS-52, FCD-IP, FCD-IPM, D8SL, MP-SHDSL** |
| Errored Seconds (ES) | The number of errored seconds |
| Severely Errored Seconds (SES) | The number of severely errored seconds |
| CRC Anomalies (CRCA) | The CRC (Cyclical Redundancy Checking) anomalies that have accumulated |
| Loss of Sync Word (LOSW) Seconds | The number of sync word seconds that have been lost |
| Unavailable Seconds (UAS) | The number of unavailable seconds |
| [Close] | Click **<Close>** to close the Accumulated Data dialog box |
| [Poll] | Click **<Poll>** to poll the Agent |

## Clearing Statistics for the SHDSL Link Port

The **Statistics > Clear Statistics** command enables you to clear port statistics at the SHDSL Link port level.

➤ **To clear port statistics at the SHDSL Link port level:**

- At the SHDSL Link port level, select **Statistics > Clear Statistics**…

    The statistics for the SHDSL Link port are cleared.

## 4.4  E1/T1 Port Level – Statistics Menu

The **Statistics** menu allows you view and clear statistics data at the E1/T1 port level.
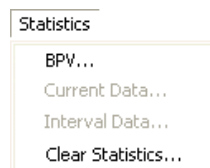


*Figure 4-10.  E1/T1 Port Level Statistics Menu*

## Viewing BPV Statistics

The **BPV** command enables you to view BPV data.

*Note*       *This command is available for the E1 port when the line type is E1-MF (G732S) or Unframed, or for the T1 port when the line type is D4 (SF) or Unframed.*

➤ **To view BPV data:**

• At the E1/T1 port level, select **Statistics > BPV…**
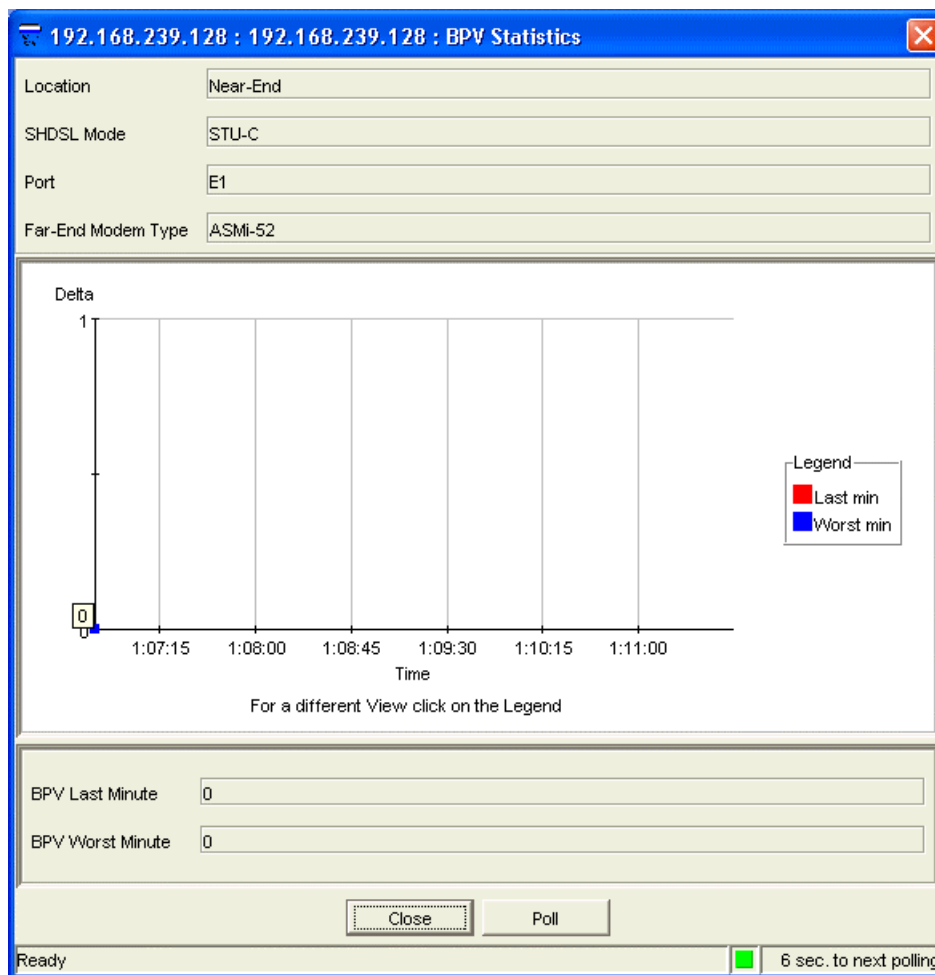


*Figure 4-11.  BPV Statistics Dialog Box*

*Table 4-7.  BPV Statistics Parameters*

| Parameter | Possible Values/Remarks |
|---|---|
| Location | **Near-End, Far-End** |
| SHDSL Mode | **STU-C, STU-R** |
| Port | **CONTROL, ETH, SHDSL Link, E1, T1, DTE (V.35, X.21, RS-530)** |
| Far-End Modem Type | **Unknown, ASMi-52, ASMi-52 Master, ASMi-52 Slave, ASMi-52/CD, ASMi-52/CQ, LRS-52, FCD-IP, FCD-IPM, D8SL, MP-SHDSL** |
| BPV Last Minute | **0…1000** |

*Table 4-7.  BPV Statistics Parameters (Cont.)*

| Parameter | Possible Values/Remarks |
| --- | --- |
| BPV Worst Minute | **0…1000** |
| [Close] | Click **<Close>** to close the BPV Statistics dialog box |
| [Poll] | Click **<Poll>** to poll the Agent |

## Viewing Current 15-Minute Port Data

The **15 min Current Data** command enables you to view port data from the beginning of the current 15-minute interval.

*Note*    *This command is available for the E1 port when the line type is E1-CRC (G732N-CRC), or for the T1 port when the line type is ESF.*

➤   **To view port data from the beginning of the current 15-minute interval:**

• At the E1/T1 port level, select **Statistics > 15 min Current Data…**
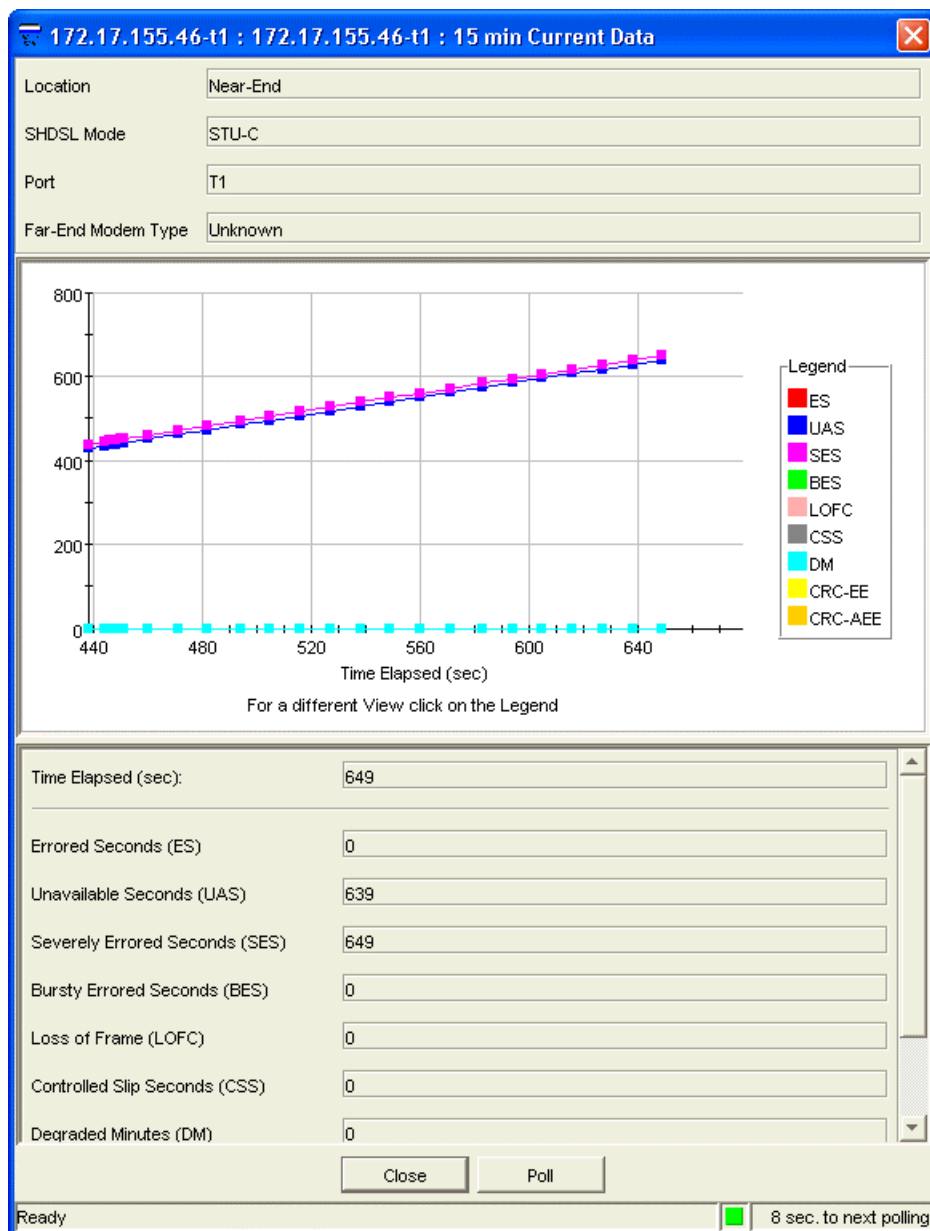
*Figure 4-12.  15 min Current Data Dialog Box*

*Table 4-8.  15 min Current Data Parameters*

| Parameter | Possible Values/Remarks |
|---|---|
| Location | **Near-End, Far-End** |
| SHDSL Mode | **STU-C, STU-R** |
| Port | **CONTROL, ETH, SHDSL Link, E1, T1, DTE (V.35, X.21, RS-530)** |
| Far-End Modem Type | **Unknown, ASMi-52, ASMi-52 Master, ASMi-52 Slave, ASMi-52/CD, ASMi-52/CQ, LRS-52, FCD-IP, FCD-IPM, D8SL, MP-SHDSL** |
| Time Elapsed (sec) | The number of seconds that have elapsed since the beginning of the current 15-minute interval<br>**0…899** |

*Table 4-8.  15 min Current Data Parameters (Cont.)*

| Parameter | Possible Values/Remarks |
|---|---|
| Errored Seconds (ES) | The number of errored seconds<br>**0…899** |
| Unavailable Seconds (UAS) | The number of seconds that are unavailable<br>**0…899** |
| Severely Errored Seconds (SES) | The number of severely errored seconds<br>**0…899** |
| Bursty Errored Seconds (BES) | The number of bursty errored seconds<br>**0…899** |
| Loss of Frame (LOFC) | Description of frame loss |
| Controlled Slip Seconds (CSS) | The number of controlled slip seconds<br>**0…899** |
| Degraded Minutes (DM) | The number of degraded minutes<br>**0…15** |
| CRC Error Event | Description of CRC error event |
| CRC Average Error Event | Description of CRC average error event |
| [Close] | Click **<Close>** to close the 15 min Current Data dialog box |
| [Poll] | Click **<Poll>** to poll the Agent |

## Viewing 15-Minute Interval Port Data

The **15 min Interval Data** command enables you to view port data for all 15-minute intervals over the last 24 hours.

*Note*   *This command is available for the E1 port when the line type is E1-CRC (G732N-CRC), or for the T1 port when the line type is ESF.*

➤ **To view port data for all 15-minute intervals over the last 24 hours:**

• At the E1/T1 port level, select **Statistics > 15 min Interval Data...**
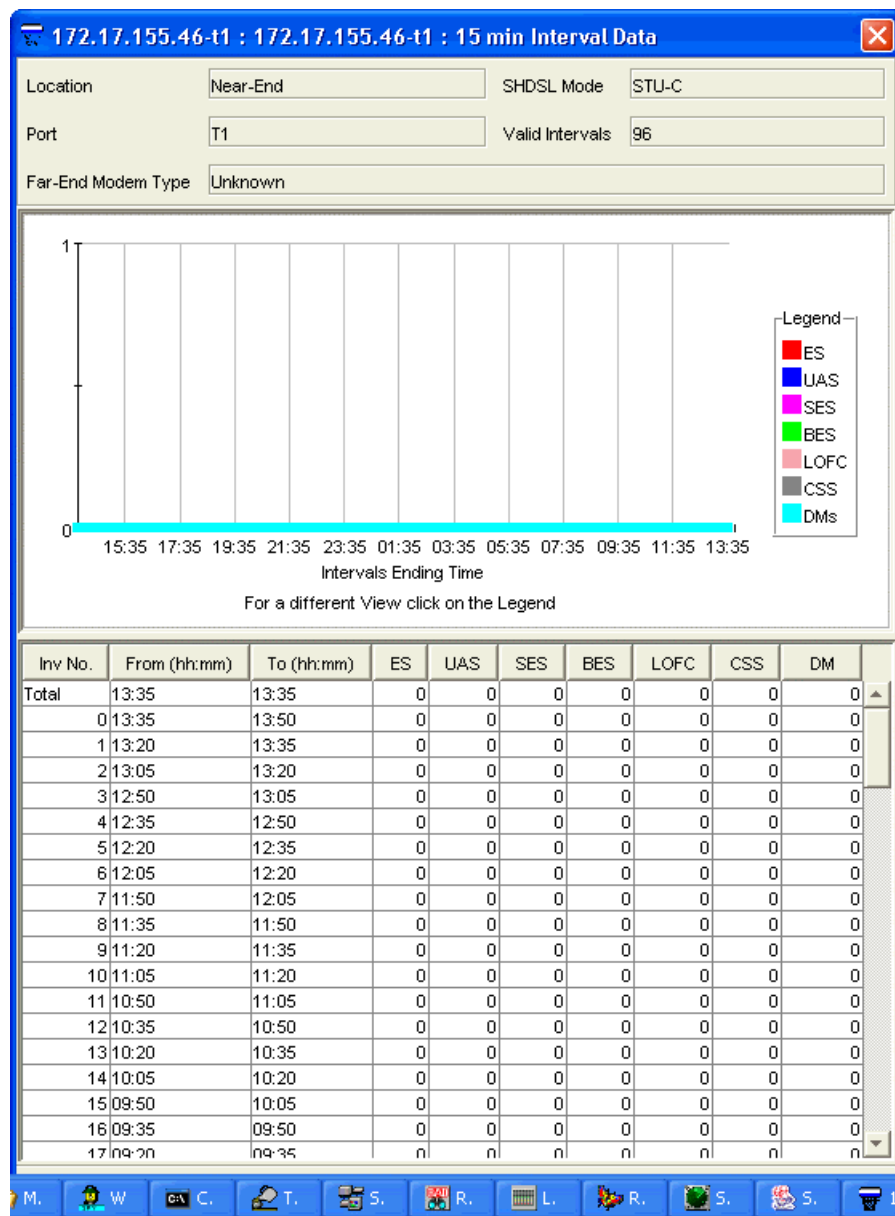
*Figure 4-13.  15 min Interval Data Dialog Box*

*Table 4-9.  Interval Data Parameters*

| Parameter | Possible Values/Remarks |
|---|---|
| Location | **Near-End, Far-End** |
| SHDSL Mode | **STU-C, STU-R** |
| Port | **CONTROL, ETH, SHDSL Link, E1, T1, DTE (V.35, X.21, RS-530)** |
| Far-End Modem Type | **Unknown, ASMi-52, ASMi-52 Master, ASMi-52 Slave, ASMi-52/CD, ASMi-52/CQ, LRS-52, FCD-IP, FCD-IPM, D8SL, MP-SHDSL** |
| Valid Intervals | The total number of valid intervals since the beginning of the last 24-hour period **0…96** |

*Table 4-9 Interval Data Parameters (Cont.)*

| Parameter | Possible Values/Remarks |
|---|---|
| Inv. No. | The interval number<br>**1…96** |
| From | The time the interval began, format hh:mm |
| To | The time the interval ended, format hh:mm |
| ES | The number of errored seconds |
| UAS | The number of unavailable seconds |
| SES | The number of severely errored seconds |
| BES | The number of bursty errored seconds<br>**0…899** |
| LOFC | Description of frame loss |
| CSS | The number of controlled slip seconds<br>**0…899** |
| DM | The number of degraded minutes<br>**0…15** |
| [Close] | Click **<Close>** to close the Interval Data dialog box |
| [Poll] | Click **<Poll>** to poll the Agent |

## Clearing Statistics for the E1/T1 Port

The **Clear Statistics** command enables you to clear statistics for the E1/T1 port.

➤ **To clear statistics for the E1/T1 port:**

* At the E1/T1 port level, select **Statistics > Clear Statistics**…

    The statistics for the E1/T1 port are cleared.

# Appendix A

# Active Alarms

This appendix lists the active alarms for ASMi-52 fault management at the modem, port, and repeater levels.

## A.1 Modem Level – Active Alarms

At the modem level, active alarms may be displayed at the modem and port levels combined, or at the modem level alone.

### Modem and Port Levels

*Table A-1* lists the active alarms at the modem and port levels combined.

*Table A-1. Modem Level Active Alarms: Modem and Port Levels Combined*

| Code | Severity | Description |
|------|----------|-------------|
| 1 | **Major** | **SELF TEST ERROR**<br>Failure occurred while testing the port hardware components |
| 2 | **Warning** | **SOFTWARE DOWNLOAD**<br>Port currently performing software download |
| 3 | **Warning** | **INBAND LOOP**<br>Inband-activated loopback in progress |
| 4 | **Warning** | **LLB FROM DTE**<br>Local loopback activated by physical connector<br><br>*Note: This alarm will only appear if the V.35 or RS-530 interface is present* |
| 5 | **Warning** | **RLB FROM DTE**<br>Remote loopback activated by physical connector<br><br>*Note: This alarm will only appear if the V.35 or RS-530 interface is present* |
| 6 | **Major** | **PROP PROT FAIL**<br>RAD proprietary protocol between devices failed |
| 7 | **Major** | **E1 TS NUM NOT COMP**<br>LRSi card not supported in this device |
| 8 | **Major** | **LAN NOT CONNECTED**<br>LAN not connected (for Ethernet interfaces) |
| 9 | **Minor** | **LOOP ATTN. OVER LINE A**<br>Loop attenuation exceeded alarm threshold at line A |
| 10 | **Minor** | **LOOP ATTN. OVER LINE B**<br>Loop attenuation exceeded alarm threshold at line B |

*Table A-1.  Modem Level Active Alarms: Modem and Port Levels Combined (Cont.)*

| Code | Severity | Description |
|---|---|---|
| 11 | **Minor** | **SNR MARGIN OVER LINE A**<br>SNR margin exceeded alarm threshold at line A |
| 12 | **Minor** | **SNR MARGIN OVER LINE B**<br>SNR margin exceeded alarm threshold at line B |
| 13 | **Minor** | **LOSW FAILURE OVER LINE A**<br>Forward LOSW alarm occurred at line A |
| 14 | **Minor** | **LOSW FAILURE OVER LINE B**<br>Forward LOSW alarm occurred at line B |
| 15 | **Major** | **DATA RATE NOT COMPATIBLE**<br>Data rate and line rate are not compatible<br><br>*Note: This alarm will only appear if the V.35 interface is present* |
| 16 | **Minor** | **PSD NOT COMPATIBLE**<br>PSD mode set by user is not compatible with the PSD mode in use |
| 17 | **Major** | **SYNC LOSS LINE A**<br>G.SHDSL line A not synchronized |
| 18 | **Major** | **SYNC LOSS LINE B**<br>G.SHDSL line B not synchronized<br><br>*Note: This alarm will only appear if the modem is 4 wire* |
| 19 | **Major** | **MNGMNT IS DOWN**<br>Management between NE and FE is down (EOC problem) |
| 20 | **Major** | **ILLEGAL EXTER CLK**<br>Exernal clock not compatible to clock set by user for DTE (not supported in this device) |
| 21 | **Minor** | **CRC ERROR OVER LINE A**<br>Too many CRC errors received on G.SHDSL at line A |
| 22 | **Minor** | **CRC ERROR OVER LINE B**<br>Too many CRC errors received on G.SHDSL at line B |
| 23 | **Major** | **NO DTE INTERFACE**<br>Device lacks a DTE interface |
| 24 | **Major** | **INTERFACE RATE FAIL**<br>Line rate failed to meet one of the following conditions:<br>— When interface is G704 or G703, line rate may be up to 2048 Kbps, or one unit up to 2 Mbps and the other unit up to 4 Mbps<br><br>— When remote unit is G703, line rate is not 2048 Kbps |
| 25 | **Major** | **E1 REMOTE FAILURE**<br>E1 on FE received red alarm |
| 26 | **Major** | **E1-TS NOT RATE COMP**<br>Number of connected time slots in E1 line not equal to line rate |
| 27 | **Major** | **E1 SIGNAL LOSS**<br>E1 loss of receiving signal occurred |

*Table A-1.  Modem Level Active Alarms: Modem and Port Levels Combined (Cont.)*

| Code | Severity | Description |
|---|---|---|
| 28 | **Minor** | **E1 BPV ERR EXC**<br>Bipolar violation error exceeded threshold |
| 29 | **Minor** | **E1 FRAME SLIP EXC**<br>Detected E1 frame slips exceeded threshold |
| 30 | **Major** | **E1 EXCESSIVE BPV**<br>Rate of bipolar violations exceeded 1 X 10-6 for period of 1000 seconds |
| 31 | **Minor** | **E1 CRC-4 EXC**<br>Detected CRC-4 errors exceeded threshold |
| 32 | **Major** | **E1 EXCESSIVE ERR RATIO**<br>Bit error link rate exceeded 10-3 |
| 33 | **Major** | **E1 AIS OCCURRED**<br>AIS detected on E1 |
| 34 | **Major** | **E1 AIS AND SYNC LOSS**<br>AIS and loss of frame alignment occurred on E1 |
| 35 | **Major** | **E1 SYNC LOSS**<br>Loss of frame synchronization occurred on E1 |
| 36 | **Minor** | **E1 CRC MF EXC**<br>Detected CRC errors in LRS52 frame synchronization signal exceeded threshold |
| 37 | **Major** | **E1 REMOTE SYNC LOSS**<br>Remote loss of frame synchronization occurred |
| 38 | **Major** | **E1 MF SYNC LOSS**<br>Local loss of LRS52 frame synchronization occurred |
| 39 | **Major** | **E1 MF REMOTE SYNC LOSS**<br>Remote loss of LRS52 frame synchronization occurred |
| 40 | **Major** | **E1 TS NUM NOT X128**<br>For 4 Wire modem, user set time slot with number that is not a multiple of X 128<br><br>*Note: This alarm will only appear when both E1 and V.35 interfaces are present (or any other interface which is not G704)* |
| 41 | **Major** | **E1 TS NUM NOT COMP**<br>Number of time slots in NE and FE do not correspond |
| 42 | **Major** | **WIRE MODE NOT COMP**<br>Line interface types (2 wire and 4 wire) for local and remote units do not corrrespond |
| 43 | **Major** | **SPAN IS NOT FULL**<br>Span containing information on central office, customer premises equipment, and repeaters is experiencing a problem on one of its segments |
| 50 | **Major** | **LINE PARAMETERS NOT COMP**<br>Configuration parameters do not correspond, causing a lack of synchronization between NE and FE |

*Table A-1.  Modem Level Active Alarms: Modem and Port Levels Combined (Cont.)*

| Code | Severity | Description |
|------|----------|-------------|
| 51 | **Major** | **EXTERNAL TO INTERNAL CLOCK**<br>Clock missing at the external clock source |
| 60 | **Major** | **SELF TEST ERROR**<br>Failure occurred while testing the device hardware components |
| 61 | **Warning** | **SOFTWARE DOWNLOAD**<br>Device currently performing software download |
| 62 | **Major** | **PS1 Fail**<br>Failure occurred in PS 1 |
| 63 | **Major** | **PS2 Fail**<br>Failure occurred in PS 2 |
| 64 | **Major** | **FAN1 FAIL**<br>Failure occurred in FAN 1 |
| 65 | **Major** | **FAN2 FAIL**<br>Failure in FAN 2 occurred |
| 66 | **Major** | **OVER TEMPERATURE**<br>Device temperature exceeded maximum range |

## Modem Level

*Table A-2* lists the active alarms at the modem level only.

*Table A-2.  Modem Level Active Alarms: Modem Level*

| Code | Severity | Description |
|------|----------|-------------|
| 1 | **Major** | **SELF TEST ERROR**<br>Failure occurred while testing the port hardware components |
| 2 | **Warning** | **SOFTWARE DOWNLOAD**<br>Port currently performing software download |
| 20 | **Major** | **ILLEGAL EXTER CLK**<br>Exernal clock not compatible to clock set by user for DTE (not supported in this device) |
| 23 | **Major** | **NO DTE INTERFACE**<br>Device lacks a DTE interface |
| 42 | **Major** | **WIRE MODE NOT COMP**<br>Line interface types (2 wire and 4 wire) for local and remote units do not corrrespond |
| 43 | **Major** | **SPAN IS NOT FULL**<br>Span containing information on central office, customer premises equipment, and repeaters is experiencing a problem on one of its segments |
| 51 | **Major** | **EXTERNAL TO INTERNAL CLOCK**<br>Clock missing at the external clock source |
| 60 | **Major** | **SELF TEST ERROR**<br>Failure occurred while testing the device hardware components |

*Table A-2.  Modem Level Active Alarms: Modem Level (Cont.)*

| Code | Severity | Description |
|------|----------|-------------|
| 61 | **Warning** | **SOFTWARE DOWNLOAD**<br>Device currently performing software download |
| 62 | **Major** | **PS1 Fail**<br>Failure occurred in PS 1 |
| 63 | **Major** | **PS2 Fail**<br>Failure occurred in PS 2 |
| 64 | **Major** | **FAN1 FAIL**<br>Failure occurred in FAN 1 |
| 65 | **Major** | **FAN2 FAIL**<br>Failure occurred in FAN 2 |
| 66 | **Major** | **OVER TEMPERATURE**<br>Device temperature exceeded maximum range |

## A.2  SHDSL Link Port Level – Active Alarms

Active alarms may be displayed at the SHDSL Link port level.

*Table A-3* lists the active alarms at the SHDSL Link port level.

*Table A-3.  SHDSL Link Port Level Active Alarms*

| Code | Severity | Description |
|------|----------|-------------|
| 3 | **Warning** | **INBAND LOOP**<br>Inband-activated loopback in progress |
| 6 | **Major** | **PROP PROT FAIL**<br>RAD proprietary protocol between devices failed |
| 9 | **Minor** | **LOOP ATTN. OVER LINE A**<br>Loop attenuation exceeded alarm threshold at line A |
| 10 | **Minor** | **LOOP ATTN. OVER LINE B**<br>Loop attenuation exceeded alarm threshold at line B |
| 11 | **Minor** | **SNR MARGIN OVER LINE A**<br>SNR margin exceeded alarm threshold at line A |
| 12 | **Minor** | **SNR MARGIN OVER LINE B**<br>SNR margin exceeded alarm threshold at line B |
| 13 | **Minor** | **LOSW FAILURE OVER LINE A**<br>Forward LOSW alarm occurred at line A |
| 14 | **Minor** | **LOSW FAILURE OVER LINE B**<br>Forward LOSW alarm occurred at line B |
| 16 | **Minor** | **PSD NOT COMPATIBLE**<br>PSD mode set by user not compatible with PSD mode in use |

*Table A-3.  SHDSL Link Port Level Active Alarms (Cont.)*

| Code | Severity | Description |
| --- | --- | --- |
| 17 | **Major** | **SYNC LOSS LINE A**<br>G.SHDSL line A not synchronized |
| 18 | **Major** | **SYNC LOSS LINE B**<br>G.SHDSL line B not synchronized<br><br>*Note: This alarm will only appear if the modem is 4 wire* |
| 19 | **Major** | **MNGMNT IS DOWN**<br>Management between NE an FE down (EOC problem) |
| 21 | **Major** | **ILLEGAL EXTER CLK**<br>Exernal clock not compatible to clock set by user for DTE (not supported in this device) |
| 22 | **Minor** | **CRC ERROR OVER LINE A**<br>Too many CRC errors received on G.SHDSL at line A |
| 50 | **Major** | **LINE PARAMETERS NOT COMP**<br>Configuration parameters do not correspond, causing a lack of synchronization between NE and FE |

# A.3 ETH Port Level – Active Alarms

One active alarm may be displayed at the ETH port level.

*Table A-4* lists the active alarm at the ETH port level.

*Table A-4.  ETH Port Level Active Alarm*

| Code | Severity | Description |
| --- | --- | --- |
| 8 | **Major** | **LAN NOT CONNECTED**<br>LAN not connected (for Ethernet interfaces) |

## A.4  E1/T1 Port Level – Active Alarms

Active alarms may be displayed at the E1/T1 port level.

*Table A-5* lists the active alarms at the E1/T1 port level.

*Table A-5.  E1/T1 Port Level Active Alarms*

| Code | Severity | Description |
|------|----------|-------------|
| 7 | **Major** | **E1 TS NUM NOT COMP**<br>LRSi card not supported in this device |
| 24 | **Major** | **INTERFACE RATE FAIL**<br>Line rate failed to meet one of the following conditions:<br>— When interface is G704 or G703, line rate may be up to 2048 Kbps, or one unit up to 2 Mbps and the other unit up to 4 Mbps<br><br>— When remote unit is G703, line rate is not 2048 Kbps |
| 25 | **Major** | **E1 REMOTE FAILURE**<br>E1 on FE received red alarm |
| 26 | **Major** | **E1-TS NOT RATE COMP**<br>Number of connected time slots in E1 line not equal to line rate |
| 27 | **Major** | **E1 SIGNAL LOSS**<br>E1 loss of receiving signal occurred |
| 28 | **Minor** | **E1 BPV ERR EXC**<br>Bipolar violation error exceeded threshold |
| 29 | **Minor** | **E1 FRAME SLIP EXC**<br>Detected E1 frame slips exceeded threshold |
| 30 | **Major** | **E1 EXCESSIVE BPV**<br>Rate of bipolar violations exceeded 1 X 10-6 for period of 1000 seconds |
| 31 | **Minor** | **E1 CRC-4 EXC**<br>Detected CRC-4 errors exceeded threshold |
| 32 | **Major** | **E1 EXCESSIVE ERR RATIO**<br>Bit error link rate exceeded 10-3 |
| 33 | **Major** | **E1 AIS OCCURRED**<br>AIS detected on E1 |
| 34 | **Major** | **E1 AIS AND SYNC LOSS**<br>AIS and loss of frame alignment occurred on E1 |
| 35 | **Major** | **E1 SYNC LOSS**<br>Loss of frame synchronization occurred on E1 |
| 36 | **Minor** | **E1 CRC MF EXC**<br>Detected CRC errors in LRS52 frame synchronization signal exceeded threshold |
| 37 | **Major** | **E1 REMOTE SYNC LOSS**<br>Remote loss of frame synchronization occurred |

*Table A-5.  E1/T1 Port Level Active Alarms (Cont.)*

| Code | Severity | Description |
|---|---|---|
| 38 | **Major** | **E1 MF SYNC LOSS**<br>Local loss of LRS52 frame synchronization occurred |
| 39 | **Major** | **E1 MF REMOTE SYNC LOSS**<br>Remote loss of LRS52 frame synchronization occurred |
| 40 | **Major** | **E1 TS NUM NOT X128**<br>For 4 Wire modem, user set time slot with number that is not a multiple of X 128<br><br>*Note: This alarm will only appear when both E1 and V.35 interfaces are present (or any other interface which is not G704)* |
| 41 | **Major** | **E1 TS NUM NOT COMP**<br>Number of time slots in NE and FE do not correspond |

## A.5  DTE (V.35, X.21, RS-530) Port Levels – Active Alarms

Active alarms may be displayed at the DTE (V.35, X.21, RS-530) port levels.

Table A-6 lists the active alarms at the DTE (V.35, X.21, RS-530) port levels.

*Table A-6.  DTE (V.35, X.21, RS-530) Port Level Active Alarms*

| Code | Severity | Description |
|---|---|---|
| 1 | **Major** | **SELF TEST ERROR**<br>Failure occurred while testing the port hardware components |
| 4 | **Warning** | **LLB FROM DTE**<br>Local loopback activated by physical connector<br><br>*Note: This alarm will only appear if the V.35 or RS-530 interface is present* |
| 5 | **Warning** | **RLB FROM DTE**<br>Remote loopback activated by physical connector<br><br>*Note: This alarm will only appear if the V.35 or interface is present* |
| 51 | **Major** | **EXTERNAL TO INTERNAL CLOCK**<br>Clock missing at the external clock source |

## A.6  Repeater Level – Active Alarms

Active alarms may be displayed at the repeater level.

*Table A-7* lists/describes the active alarms at repeater level.

*Table A-7.  Repeater Level Active Alarms*

| Code | Severity | Description |
|------|----------|-------------|
| 44 | **Major** | Network side loop attenuation alarm occurred |
| 45 | **Major** | Customer side loop attenuation alarm occurred |
| 46 | **Major** | Network side SNR margin alarm occurred |
| 47 | **Major** | Customer side SNR margin alarm occurred |
| 48 | **Major** | Network side SHDSL LOSW failure alarm occurred |
| 49 | **Major** | Customer side SHDSL LOSW failure alarm occurred |

# Index